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TEACHING READING IN THE ELEMENTARY SCHOOL--SELECTED REFERENCES.

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LOS ANGELES CITY SCHOOLS, CALIF.

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TO PROVIDE EDUCATORS WITH BACKGROUND KNOWLEDGE OF THE DIFFERENT ASPECTS OF ELEMENTARY READING INSTRUCTION, THE LOS ANGELES CITY SCHOOLS PRESENT A COMPILATION OF SELECTED REFERENCES. THE COMPILATION INCLUDES REFERENCES ON SIGNIFICANT RESEARCH, SUCCESSFUL PRACTICES, AND PROPOSALS IN THE FOLLOWING AREAS OF READING INSTRUCTION--READING READINESS, APPROACHES TO READING INSTRUCTION, SUPPLEMENTARY READING, READING IN THE CONTENT AREAS, AND READING DISABILITIES. THE INCLUSION OF A REFERENCE DOES NOT IMPLY ENDORSEMENT OF THE TECHNIQUE OR THESIS PROPOSED. FOR THE CONTROVERSIAL AREAS OF READING INSTRUCTION, STATEMENTS BY THE PROPONENTS ARE INCLUDED, AND, WHENEVER POSSIBLE, EVALUATIVE STATEMENTS ON THE ADVANTAGES AND LIMITATIONS OF CERTAIN PROPOSALS ARE PROVIDED. REFERENCES ARE ENTERED WITH COMPLETE BIBLIOGRAPHIC CITATIONS, A SHORT ANNOTATION, AND SOME EXCERPTS WHICH EXPLAIN THE MAIN THESIS. A LIST OF ADDITIONAL REFERENCES IS INCLUDED. (NS)

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**TEACHING READING
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ROMER, ROBERT D.

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LOS ANGELES CITY SCHOOLS
DIVISION OF INSTRUCTIONAL SERVICES
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FOREWORD

The material in this bulletin has been developed as one section of a projected guide to assist teachers in providing instruction in reading.

This publication is designed to provide teachers, principals, and supervisors with general background information relative to many of the different facets of reading instruction. It should be especially helpful to leaders of institute and in-service classes in reading.

Certain aspects of reading instruction in which there has been considerable recent interest were selected for inclusion in this publication upon the recommendation of the academic supervisors. An effort has been made to include a balanced selection of references which report on significant research and successful practice in each of these areas of concern in the teaching of reading. Some aspects of reading instruction, such as adaptations for culturally disadvantaged or foreign speaking pupils, were not included because they are being considered in other publications. Information on diagnosis and evaluation of reading capability has been included within certain other sections, and also in the additional references.

The selected references included in this publication are available in the Professional Library and in university or college libraries. However, the main ideas of the author have been included for each selected reference so as to make this information readily accessible to those who may wish to avail themselves of it. Additional references have been included for those who wish more extensive information.

Inclusion of a certain reference in this selected bibliography is not intended to constitute an endorsement of the materials or techniques it recommends. Many articles were included because of current interest in the proposals they contain, rather than on the basis of any conclusive evidence of their efficacy, as is indicated in the introduction to various sections. For the controversial areas which have been widely discussed in the literature, statements by the main proponents of new approaches or techniques have been included. Where possible, evaluative statements regarding these new approaches or techniques have been cited, also, to give a better perspective on their possible benefits or limitations.

This presentation of selected references contains considerable information regarding a number of important aspects of reading instruction in which there is current interest, but offers no simple solution to the broad task of developing varied skills in the complex process called reading.

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Particular appreciation is expressed to MR. ROBERT D. ROMER, who, as a Consultant in the Elementary Section, Curriculum Branch, developed the content of this bulletin. His knowledge of the literature in the field of reading and his excellence in research are reflected in the content of this publication.

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I. READINESS FOR READING

Several aspects of readiness for reading are treated upon by the authors of the selected references in this section. The question of "the" appropriate age for beginning reading instruction has come to be seen in a broader light, in view of research studies which have indicated that no single factor determines "reading readiness." Consideration for characteristics of child growth and development continues to be shown in relation to readiness for reading. However, there is increased concern that application be made of the results of research which indicate that specific learning activities make distinct contributions to readiness for reading instruction.

Cutts, Warren G. "Reading Unreadiness in the Underprivileged," NEA Journal, 52 (April, 1963), 23-24.

A consideration of the limited language development of culturally disadvantaged children with suggestions for adapting teaching procedures to meet their needs.

Warren G. Cutts is specialist for reading, U. S. Office of Education.

In the following excerpts, Cutts emphasizes the need for the development of adequate communication skills in culturally disadvantaged children, and suggests specific measures to assist in preparing them for further development of reading skills:

Although listening, speaking and writing skills are only a part of the needs characteristic of the language-handicapped children, they are a vital part. Without mastering communication skills, culturally disadvantaged youngsters can never unlock the doors that lead to useful, productive citizenship; they can never become first-class citizens.

.....

Obviously, children who lack readiness for reading in terms of their oral language development and background of experience must have a prolonged readiness program either in school or before they enter school. Six-year-olds who cannot talk coherently can scarcely be expected to begin reading as soon as they enter school.

Children whose language is limited to grunts and crudities need extensive experiences before they are ready for any formalized reading instruction.

If these children are to master the basic language skills of listening and speaking, they must have a wide range of experiences -- both real and vicarious -- than their more fortunate counterparts.

Such experiences should include listening to stories told or read by the teacher; taking trips to the parks, farms, zoos, airports, fire stations and other points of interest; using the listening to tape recorders; hearing records; and seeing movies and filmstrips. In all these activities, the main objective is to provide pupils with opportunities for language experience. They must therefore have plenty of time to react to and talk about things they have seen and heard.

Teacher attitude is extremely important in helping disadvantaged children. The teacher needs to know that vocabulary and language concepts develop slowly. He must learn to accept each child as he is and to respect him as an individual. He must take nothing for granted and carefully check all his

assumptions concerning the child and the child's experiences.

.....

More and more educators are recognizing the importance of working with culturally disadvantaged children during the early formative years. School systems such as those of Dearborn, Michigan, and Quincy, Illinois, are now shifting emphasis from the junior high and high school to kindergarten and first grade. This shift is overdue and should be shifted downward until it reaches into the preschool years.

Culturally disadvantaged children must be helped to accept themselves and to realize, at the same time, that different kinds of language are appropriate as situations vary. They must come to understand that without language mastery they cannot hope to bridge the gap which lies between themselves and profitable occupations -- between second-class and first-class citizenship.

Durkin, Dolores. "Early Readers: Reflections After Six Years of Research," Reading Teacher, 18(October, 1964), 3-7.

An analysis of the implications of two longitudinal studies of children who learned to read at home, prior to their entering first grade, with regard to the development of readiness for reading in Kindergarten programs.

Dolores Durkin is Associate Professor of Education in the Department of Curriculum and Teaching at Teachers College, Columbia University.

In the following statements pertaining to Kindergarten instruction in reading, Durkin suggests several practical applications of her research, and emphasizes the integration of the Kindergarten program with the total elementary school program:

Were I to try to put into kindergarten programs the kinds of things that encouraged the early reading ability of children in my research, I would begin with a kindergarten teacher who not only answers questions about written language but who also plans ways to increase the questioning. In the research, the preschool questions of children were frequent, and the questions were about street signs and car names as often as they were about words appearing in books. When books did help, it was generally while a parent read to a child and, on occasion, pointed out words that were of special interest or importance.

Actually, more than half of the preschool readers in the research were interested in writing before they ever showed any interest in reading. For these children writing seemed to be the extension of a still earlier interest in scribbling. Over time, the scribbling changed to the drawing of people and things; later, to the drawing of letters of the alphabet. Here, small blackboards were often used for "practice."

Still other early readers, according to their parents, showed interest in playing with oral language and with sounds. For some of the children this interest resulted in the ability to respond to requests like, "Tell me a word that begins the way 'bird' begins." For a very few children the interest in sounds and in letters eventually led to some independence in spelling.

.....

With these facts, it seems safe to predict, our conception of the role of kindergarten education will be broadened to include much more variety in the curriculum and, consequently, much more need for small-group and individual activities. . . .

If a "worthwhile job" is made possible, one can also predict an attitude toward kindergarten which views it as an integral and very important part of the total elementary school program. For too long, now, kindergarten has been either isolated or put on the sidelines. It has been -- as I heard a parent say just the other day -- "a good time for catching measles and mumps because not much of importance goes on there." This is unfair to kindergarten children, and to kindergarten teachers.

Harris, Albert J. "Reading and Human Development," Development in and Through Reading, pp. 17-34. Sixtieth Yearbook of the National Society for the Study of Education, Part I. Chicago: University of Chicago Press, 1961.

A chapter which treats upon the characteristics of child development and aspects of development significant for reading.

Albert J. Harris is Director, Office of Research and Evaluation, Division of Teacher Education, City University of New York; and was formerly Director of Educational Clinic and Professor of Education, Queens College of the City of New York.

In the section on reading readiness in this chapter, Harris summarizes the implications of research studies regarding the factor of age in relation to learning to read. He further points out that readiness for reading can be facilitated through pre-reading activities.

Although entrance into the first grade in most school systems is based entirely on the child's chronological age, recent evidence indicates that chronological age in itself has no significant relationship to success in learning to read. Age is significant because it is a dimension in which both maturation and learning take place; when these are equated, younger children do as well as older ones. The implications of this for policy concerning entrance into the first grade have generally been ignored, probably because from an administrative standpoint it is far easier to apply and to defend an admission policy based solely on age.

Studies of sex differences in readiness have rather consistently shown earlier readiness for girls than for boys. Although this fact has caused some to advocate a higher first-grade entering age for boys than for girls, the amount of overlapping between the sexes, with many boys far above the average for girls, seems a valid reason why this proposal has not received much support.

The substantial relationship generally found between intelligence test scores and success in beginning reading has led many writers to state that a mental age of six or six-and-a-half is a minimum requirement. When instruction is geared to the abilities of the children both in method and in rate of progress, average five-year-old children can achieve success in learning the beginnings of reading, as has been amply demonstrated in Great Britain. On the other hand, beginning systematic reading instruction at the age of seven, as is done in Sweden, does not seem to reduce greatly the percentage of children who experience difficulty. It has yet to be demonstrated that there are lasting advantages in either an early or a late start for most children, and the age of six at which most children begin reading in the

United States seems to be reasonably in line with what we know about the mental growth of children. Some, however, are ready for reading at a considerably younger age, and others would probably find the beginnings of reading much easier if they could be introduced to it somewhat later.

There is general agreement that readiness should be studied and assessed, but the idea that one can "build" readiness has been attacked and the point of view advanced that "drills and exercises cannot do the job that only growth and maturation and living can do." Research seems to indicate, however, that children who have had kindergarten experience have an advantage in the first-grade program over those with no kindergarten experience, and that certain types of specific training designed to enhance readiness for reading are beneficial.

Pincus, M. and F. Morgenstern. "Should Children Be Taught to Read Earlier?" Reading Teacher, 18 (October, 1964), 37-42.

A review and analysis of studies and writings concerned with child development in relation to an appropriate age for beginning instruction in reading.

Morris Pincus and Frances Morgenstern are Principal and Assistant Principal, respectively, in Public School 194 in Brooklyn.

The authors' review of the literature on the appropriate age for beginning teaching of reading leads them to the realization that this question involves multiple interrelated factors. The following statements contained in this article zero in on some of the key issues and questions regarding this issue:

The question of how early reading affects emotional health is a serious and complex one. It is improbable that a single or simple answer could do justice to the question. It would appear from much of the literature that reading has become a successor to feeding and toilet training as one of the major psychological determinants of behavior.

.....

Perhaps some of the difficulty in discussing "early reading" productively arises out of ambiguity in the formulation of the question. Somehow the explicit question, "Should some children be taught to read earlier than they are?" becomes transformed into the implied question, "Should all children be taught to read too early?"

The chronological fact of life in some cities is that children enter the first grade between five years, eight months of age and six years, eight months. Direct instruction in reading begins "for some children" after four or five weeks in the first grade. The age of the oldest group at the time that reading instruction is started in the first grade is, therefore, six years, nine months. A child in the youngest group, had he been born a day or two later, regardless of all other factors -- readiness, interest, etc.-- would have been required to wait a whole year before learning to read. Yet, despite a chronological age range of twelve months and tremendous differences in personality, ability and interest, we do not begin to introduce formal instruction in reading to any child before the end of the first month in the first grade.

From the abundance of discussions and articles on the most desirable age at which to begin reading instruction, one fact emerges clearly -- there is considerable disagreement among the experts.

.....

These statements raise doubts about some of the assumptions we generally accept with regard to kindergarten education, e.g., children move at their own pace, we start where we find the child, etc. Apparently in a group of twenty-five to thirty-two children with a range in mental age of about four years, there is a "top group" of about 30 per cent who are not permitted to move at their own pace because it is difficult to arrange for a program sufficiently diversified to include reading, a "quiet" activity. Is it not possible to plan the day's program so that the group of children ready to read could engage in this quiet activity while less mature or less interested children engage in other quiet activities of an appropriate nature?

.....

Perhaps much of the difficulty and some of the controversy that arises in considering the question "Should younger children be taught to read?" could be avoided by asking, instead, more specific questions, such as: "Which characteristics enable children to learn to read successfully before they enter the first grade?" "How can we best help children who are already reading?" "Which methods and materials are most effective for introducing young children to reading?" In fact, can we justify not asking such questions?

Sanderson, A. E. "Idea of Reading Readiness: A Re-Examination," Educational Research (British), 6 (November, 1963), 3-9.

An overview of the concept of reading readiness showing the importance of various contributing aspects such as: mental age; desire to learn; beliefs and attitudes of the teacher and parent; learning to read -- too early or too late; and misguided thinking.

A. E. Sanderson is the assistant editor of Educational Research.

Sanderson's article deals with three main questions: What is the theory of reading readiness?; How has it effected the beginning reader?; and What implications does the theory have for teacher diagnosis and understanding?

Until the nineteen twenties, it was almost universally held, both by educationalists and parents, that all children could and should be taught to read on first entering the primary school. The conscientious parent, indeed, considered it as a part of his or her duties to commence teaching a child to read during the pre-school year, and often did so with considerable success. If there were successes, however, there were also failures -- both in home and in school, and the proportion of the children failing to read in their first year or two of school, together with the spread of new psychological ideas, led to a change of attitude and practice.

In the U.S.A., as early as 1896, the rightness of teaching children to read in the first grade was questioned in an article by C. T. W. Patrick, which lists many harmful effects of a premature attempt. It was, however, the psychological researchers which followed which led, in the early nineteen-twenties, to the development of the concept of reading readiness.

The term seems first to have been used in the Report of the National Committee on Reading (National Society for the Study of Education, 1925), and quickly passed into common usage. Widespread (albeit imperfect and uneasy) acceptance of the concept itself has finally killed the idea of a uniform definite and early age for teaching all children to read, and has substituted for it the notion that the age for beginning to learn to read is particular to each child. However excellent the concept of reading readiness may be from the standpoint of developmental psychology, it presents considerable difficulties both theoretical and practical, to the teacher. It implies that the teacher can and should both understand and diagnose a highly complex state of readiness in each of the children in her care. For this task, she is given only one cue from research -- an association of reading readiness with mental age and, in particular, with an optimum or a minimum of 6½ years -- and even the definiteness of this cue is open to doubt.

.....

... The view expressed in Reading Ability (Ministry of Education, 1950) is that reading readiness depends on 'a certain state of maturity' and that this 'will depend on home conditions and social environment, facility in spoken language, emotional stability, and upon the level of innate ability.' Where so many factors are involved, it is not surprising that there is some variation in the degree of emphasis placed upon particular factors by different authorities.

.....

Much of the discussion on reading readiness has been marked by loose thinking and this often apparent in the parallels which are frequently drawn to emphasize its developmental character. Adams, Gray and Reese (1949) state, for example: 'Just as a normal child learns to walk and talk when he reaches the proper development for these activities, so he arrives at readiness in his own time.' The implication here, is that there is something biological and inevitable about reading ability, if one waits. In the literature of reading readiness, injunctions to the teacher and parent to 'relax, wait and let nature take its course' are very frequent.

The analogy between walking, talking, and reading is by no means complete. Walking is a normal biological development in the child; the normal child will naturally learn to talk, in a social setting at any rate; but reading is a skill, which only occurs in an advanced culture, in an environment which demands it. Adequate biological development may well be necessary before a child can learn to read, but there is thereafter nothing biologically inevitable about the acquisition of the reading skills themselves. Waiting for nature may, then, involve waiting until the cows come home. Reading skill can only develop when the opportunity is present, if the environment encourages and demands it. It may even be doubted whether nation-wide literacy is possible without strong social and economic pressure to acquire and use reading skills and habits.

Sheldon, W. D. "Teaching the Very Young to Read," Reading Teacher, 16 (December, 1962), pp. 163-168 .

An analysis of some interrelated elements of the reading process and their relationship to the beginning reader. Includes summaries of research in visual and auditory perception.

Dr. Sheldon is Professor of Education at Syracuse University, and was president of the International Reading Association, 1961-1962.

The following material gives information to the parent or teacher who asks the question: should my two-, three-, or four-year-old be taught to read?

Up to the present moment few educators have expressed opinions for or against the movement to teach two-, three-, and four-year-olds to read either in nursery schools or in the home by parents. A few have expressed negative reactions, however, to an ever increasing tendency of schools to introduce formal reading instruction in kindergarten

.

In summary, very young children can and do learn to read, on their own or with more or less direction at home or in a specially oriented nursery school situation. The children do not have to be gifted to read at an early age, as Durkin revealed.

The unanswered questions, raised in particular by the Moore study, seem to be, "Is all the effort worthwhile in terms of a maintained advantage?" and perhaps more important, "Does early reading instruction, especially when it involves pressure and seemingly onerous drill, enhance or lessen future interest of the pupil in reading either for pleasure or profit?"

.

Vernon ... has pointed out that while five-year-olds can be successful in visual discrimination activities, they have real problems in auditory discrimination. Vernon also asserts that the short attention span of young children has a negative effect on sequential learning.

Agnew ... and Dolch and Bloomster ... conclude from their studies that premature reading instruction, involving word analysis skills, often results in confusion and failure.

It is generally suggested that before children are taught to read, they should be able to identify pictures of objects with which they are familiar. Studies by Binet ..., Miller ..., and Poston and Patrick ... all revealed that young children encountered difficulty in associating meaning with picture.

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Vernon's general conclusion, drawn from studies of form and word perception, is that children below a certain age are too immature to perceive and remember small details of shape with good accuracy. However, the normal child at the age of five or six learns rapidly, and in general the child who is learning to read is less likely to be handicapped by deficiency in visual perception of word shapes than by difficulty in auditory analysis of word sounds.

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There is no doubt that children of lesser mentality can be taught in a drill-like manner to react in an automatic fashion to symbols. The problem is in the development of insight into meanings and an understanding of relationships which lead to later independence in word recognition.

Sutton, M. H. "Readiness for Reading at the Kindergarten Level," Reading Teacher, 17 (January, 1964), 234-40.

An analysis of an investigation of the visual and auditory perceptual abilities which are considered prerequisites for reading readiness.

Marjorie Hunt Sutton is a supervisory teacher at Ball State Teachers College, Muncie, Indiana.

A number of factors which are not adequately measured in readiness tests were revealed in this study. Some of these factors and their implications, as reported by Sutton, are as follows:

When all the factors discussed in this study are considered, and if these children are representative, a picture of the child who learns to read at an early age begins to emerge:

1. The child is probably a girl.
2. It is likely that she has one or more older brothers or sisters who read to her occasionally.
3. She comes from a relatively high socio-economic level. This in turn may affect the quantity and quality of her learning experiences.
4. Her father probably earns a living through largely mental endeavor rather than manual labor.
5. Her parents are interested in school affairs and in the educational progress of their children.
6. Her parents have read to her since she was one and a half years old or younger.
7. She is interested in words and asks questions about them.
8. She is conscientious, self-reliant, and able to concentrate.
9. She has a good memory.
10. She is probably not "happy-go-lucky."
11. It is likely that she can recognize and name most of the letters of the alphabet.

.....
"Does this early instruction produce lasting and beneficial results?" Studies to determine the eventual benefits, if any, or learning to read at an early age are greatly needed. Apart from any lasting results, the immediate benefits, such as joy, innate satisfaction, and pleasure in learning to read seem worthwhile. The early use of reading as a valuable tool of learning is another important immediate benefit.
.....

The question of reading instruction at the kindergarten level is not a dichotomy: either instruction for all children with no regard to their state of readiness, or instruction for none, no matter how much they may desire it. It is possible to provide unstructured reading activities for those mature children who are ready for it, in addition to all the other activities provided by a well-rounded kindergarten curriculum. The teacher of children from high socio-economic levels ought to be especially alert to such a possibility.

Weir, Lois Turner. "Who Teaches Reading Readiness?" Grade Teacher, 81 (June, 1964), 29, 98.

A discussion of the nature of reading readiness with emphasis on the importance of development during the preschool years. Suggests a number of ways parents can contribute to their children's readiness for reading, as well as provisions which teachers must make to accomodate children with varied experiential backgrounds.

The concept of reading readiness as a continuing process and suggestions for the development of readiness for reading by parents and teachers are stated by Lois Weir in the following manner:

Reading readiness is a progression of experiences starting early in life when the child hears a story read or told by his parents, and continues on through many phases as his interest in printed words develops. Many people think of reading readiness only as the period of time spent in preparation for reading during the first few weeks of first grade. This is only partly true! As the child learns to read in the first grade, he continues his readiness for things to come.

Readiness is an accumulation of experiences needed to achieve a goal. Until many phases or experiences necessary in the preparation for reading have been undergone, the desire to read will not normally develop. This desire is a prerequisite for successful reading.

.....

Parents can provide reading readiness for their children by first seeing that the child has a healthy environment, by demonstrating pleasure from their own use of reading material, by being patient listeners and by answering or explaining things which make the child curious. Many parents are anxious for their child to read but do not provide the background needed for him to enjoy it. Walks, trips, reading, storytelling and providing books which are attractive to children are of much value. Visiting the local library from the age of three or four is a beginning in library manners and functions. Letting the child select preschool books which attract him furthers his interest in printed material.

.....

A major problem facing teachers is one of giving parents, long before the child is enrolled in kindergarten or first grade, an understanding of what reading readiness is. Many failures in beginning reading have been caused by the lack of a gradual approach. Parents need not teach their child to read, but they need to show him the attention and experience or associations that make him ready to learn to read.

II. APPROACHES TO READING INSTRUCTION

Currently a wide variety of approaches to teaching reading are advocated by a number of people who have become identified with a particular emphasis or procedure. Considerable enthusiasm has been generated for certain approaches by those who have led in their development and application. This enthusiasm has led to a number of research studies which have favored the "experimental" method regardless of which approach is being evaluated. Nevertheless, the great bulk of controlled research studies have indicated that the basal reader approach has resulted in gains in reading ability which are about the same as those being compared with it, despite the tendency for the experimental group to be favored in evaluation procedures. One specific reason why studies may show increased gains for the experimental group is that evaluation devices are often selected which test the skills which are being emphasized in the particular approach which is advocated by the person conducting the study.

It is important to recognize, however, that new procedures can make valuable contributions to reading instruction. At the same time, it is unwise to initiate radically different procedures until sufficient experimentation and evaluation has been carried out to prove their effectiveness. Further, it is necessary to consider the availability of instructional materials in relation to the use of whatever approach is suggested for use.

The trend in current thinking among many knowledgeable people in the field of reading is that the strengths of specific approaches can be included in or along with a comprehensive basal reading approach. Our better basal reader series have for some time made provision for a wide variety of learning experiences in addition to the use of the basal readers. The trend in producing basal reader programs is to make increased provision for utilizing the desirable features of other approaches to teaching reading. New basal reading programs will give greater attention to utilizing the language experiences of children, providing for individualized instruction and individual reading of supplementary materials, and will give increased attention to the linguistic structure of the story content. It is likely that there will be earlier development of knowledge of letters and the sounds of letters in words. Also, the content of stories is likely to reflect the interests and maturity of today's youth, within the limitation of a reasonable vocabulary load.

Knowledge of various approaches to reading instruction is valuable in order to learn the possible contribution that a particular approach may make. In this section references are given for the following approaches:

- A. Basal Reading Approaches
- B. Language Experience Approaches
- C. Individualized Approaches
- D. Phonic Emphasis Approaches
- E. Linguistic Approaches
- F. Early Letter Emphasis Approaches
- G. New Alphabet Approaches

References are included by people who advocate various approaches as well as by others in the field who have made evaluative statements regarding the implications of research and experience in relation to a particular approach.

A. Basal Reader Approaches

Although a number of criticisms have been leveled at basal readers, they continue to provide the most satisfactory organizational plan for teaching reading of any of the current approaches. In considering the basal reading approach, it is well to remember that instruction through this approach encompasses much more than the mere use of basal readers. The term "eclectic approach" might be a better description for a broadly conceived basal reading approach. The reading of experiences charts, library books, supplementary readers, and other printed materials are an integral part of any well-executed basal reader program. Reading such supplementary materials, in addition to graded basal readers, permits maximum recognition of individual differences in reading instruction.

The major value of the basal reader approach is that it provides the content for the sequential development of word recognition skills. Other important skills also may be developed through the use of these materials.

The techniques and values of such a broad approach to basal reading, the value of grouping for instruction, and some of the newer trends in basal reader programs are discussed in the references which follow.

Artley, A. Sterl. "Eclectic Approach to Reading," Elementary English, 38 (May, 1961), 320-27.

A review of the eclectic approach which considers the nature of extremes in educational practice and the values of group basal instruction, as compared with the values of individual instruction.

A. Sterl Artley is Professor of Education, University of Missouri.

Artley suggests an eclectic approach to the appraisal of some key issues and raises some significant questions: On what basis can we evaluate the individualized approach to reading?; What can we learn from a research project comparing the mean gain of an "experimental" group with that made by a group following a "traditional" approach?; How does small-group and individual counseling effect achievement?

As one reads dispassionately articles describing the theory behind individualized reading he cannot help noting that a great deal of what is written represents acceptable psychology and pedagogy. Everyone would find acceptable the principle of individuation of growth and the need to have the type and rate of instruction based on the characteristics of the child. For years school people have been exploring methods of instruction and classroom organization that will enable each child to develop to his maximum. Everyone recognizes the potency of reading interest as a factor in motivation. Everyone agrees that children should have a wide variety of material from which to select. All texts in reading methods discuss procedures for organizing individual or small "help" or "needs" groups for children with particular problems or special interests.

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Extreme points of view in philosophy and method are not new to education, unfortunately. Pendulums have a characteristic way of swinging to extremes, but denied the motivating power of a mainspring, they eventually swing to a neutral (and more defensible) position. Within the professional lifetime of

most of us we have witnessed the extremes of phonics vs. sight words, oral vs. silent reading, experience vs. teacher-directed approach. In each case the extremes were vigorously defended at the time, but eventually the best of each approach was combined into an instructional pattern more effective than either used solely.

What is badly needed at the present time is research that will give us some indication as to what the best features of each approach are and how they may be applied best. We also need to know whether certain features are more applicable to one segment of the school population than to another. Little is to be gained in trying to "prove" the merits of one approach over another by comparing the mean gain of an "experimental" group with that made by a control group following a "traditional" method. Literally any plan, procedure, or technique can be "proved" superior if the researcher and his co-workers are enthusiastic about it. The results of a particular procedure are more likely to be a function of the teacher than of the procedure, per se.

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The feature of teacher-pupil interaction . . . seems to be a highly important feature of reading instruction. Through conferences the teacher has the opportunity to assess the child's attitude toward reading, to note whether it is eager, defensive, or bored. Through tests, sociometric appraisals, and parent conferences she is better able to understand his ambitions, his feelings, and his frustrations. Both the teacher and the pupil come to know each other as persons, and to establish an understanding and a feeling of rapport, factors that are coming to be recognized more and more as extremely conducive to school learning. In fact, careful research might well show that the close teacher-pupil relationship making for feelings of self-worth, importance, and success is one of the major features contributing to the success of individualized reading.

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Both of these studies (ed.: Ojemann and Wilkinson, and Martin) seem to indicate that as teachers came to know their pupils better as individual personalities, they became more effective guides to learning; and as the children themselves increased in personal-social adjustment there was a concomitant increase in academic achievement. Though these studies relate only indirectly to the individualized vs. group teaching controversy, the implication remains that over-all achievement appears to increase as teachers come to understand their children better. Again it should be pointed out that improved understandings growing out of a closer pupil-teacher relationship are not the exclusive outcome of an individualized approach. Individual and small-group conferences may be just as much a part of a program using basal readers and group procedures as one using trade books and individualized procedures.

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On the basis of the judgment and opinion of qualified leaders in the field, along with the findings of a growing body of research, there seems to be no valid reason for concluding that one must make a choice between individualized reading and a group approach using basal materials. Rather, the wise procedure would be to combine and adapt the best features of each into a pattern that adequately serves the needs of the learner. At times this will involve group procedures, at other times, individual.

Brown, C. M. "Whither Basal Reading," Education, 82 (September, 1961), 3-5.

A report on the use of an enriched basal reading program showing excellent results in a stable, conservative community.

Charles M. Brown is Director, The Reading Clinic, University of Southern California.

Brown describes some aspects of the basal reading program and emphasizes the importance of stimulating the child to read a wide variety of outside material.

Extensive consideration, of late, has been given to newer methods of teaching reading, especially individualized reading. Claims for the values of individualized reading programs have been made which indicate, in some cases, remarkable results. Does this mean the end of basal reading programs?

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The program, as observed, was very similar to that recommended by most authors of basal reading series. Little or no formal reading or reading readiness work was carried on in the kindergarten, which concentrated on its more traditional role of preparing children to work in a group.

In the first grade, instruction was carried on by means of a pre-primer approach, preceded by experience chart work. At the time the observations were made, all first-grade children had at least started the first pre-primer. Some of the youngsters were well into the primer.

The methods employed in the program included introduction of the story, presentation of the new vocabulary through discussion and use of the blackboard, guided silent reading, oral re-reading, and follow-up

Instruction was carried on in group situations where the teacher worked with a small group of ten to twelve youngsters, while the remainder of the class was busily engaged in appropriate independent reading activities. The auditory and visual-auditory aspects of phonetic analysis were handled at the appropriate level in the first grade with children who had already developed the beginnings of a basic sight vocabulary. Workbooks were employed as part of the follow-up work, and were regularly corrected by the teacher and reviewed with the children.

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In the intermediate grades the advanced stages of structural analysis were employed, as well as reviews of phonetic analysis. Considerable attention was given to refinements of comprehension, including an examination of the motivation of story characters and critical reading in which the motives and qualifications of authors of the stories were examined.

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From the observations made and the data obtained, it would seem that the basal reading program enriched, as it was, in the manner advocated by most basal reading authors, had produced excellent results in this stable, conservative community. It is problematical whether an individualized reading program would improve these results to any appreciable degree.

One of the reasons for this conclusion is the extent of wide outside reading done by the children, both under the direction of the school and on their own. Records indicate that library circulation in this community has more than kept pace with the growth in population for the past ten years.

It would seem unwise to recommend a change from a successful basal reading program to any other type of reading program.

Huck, Charlotte S. "The Changing Character of Basic Reading Materials," Educational Leadership, 22 (March, 1965) 377-81, 439.

A review of significant changes which are being made in basal reading materials with regard to vocabulary and linguistic controls, experimental editions, changed content, multi-ethnic editions, provision for individual needs, and packaged classroom libraries.

Charlotte S. Huck is Professor of Education at Ohio State University, Columbus.

In the sections of this article which follow, Huck cites a number of current changes in the production of basal readers which are intended to improve and adapt these materials for use in the developmental aspect of reading instruction.

Almost every issue of a professional or popular periodical carries an article heralding a sensational new approach to the teaching of reading including a description of some amazing new material that promises to be the panacea for all reading problems. . . . Many claims are being made for these inventions in reading materials; some can be substantiated by research while others are but loud cries in the marketplace.

Less sensational but of far greater importance for reading instruction in our American schools, are the significant changes in the production of new basic reading materials. Since basic readers are used in some 95 percent of our primary grades and in 88 percent of the middle grades, any major change in these materials deserves educator's attention and analysis. For the past 30 years basic readers have changed very little; of course each new revision saw new stories added and skill instruction refined. Today, however, reading programs have expanded greatly to meet the needs of our changing society. No longer is one basic text per grade adequate to challenge the reading abilities of all children.

Children in urban schools may use different books than do children in rural or suburban areas. Books that are representative of the multi-ethnic background of this country have been prepared. Content has been broadened to include both fictional and nonfictional selections. The literary quality of the books has been improved greatly and there is a noticeable step-up in both the vocabulary and skill development. These are major changes in basic reading materials, not minor revisions. They deserve careful scrutiny.

Newton, Eunice Shaed. "The Basal Primer May Be Deceptively Easy," Elementary English, 40 (March, 1963), 273-74.

An article which considers the appropriateness of using carefully graded vocabularies in basal primers.

Eunice Shaed Newton is Associate Professor of Education at Howard University, Washington, D.C.

Newton points out that the case for controlled vocabulary in initial developmental reading texts is supported by the linguistic studies of Barnett.

Even though the battle over Dick and Jane, Bob and Judy, Jack and Janet continues without abatement, educators perhaps should approach vocabulary revisions of basal primers with thoughtful hesitancy. It could very well be that the field of linguistic science offers ammunition for the fray which can adequately state the case for controlled vocabulary in initial developmental reading texts. Could it be that the frequently derided, repetitious vocabulary of the basal primer is serving developmental function? Lincoln Barnett, in a provocative article in Life, . . ., presented a veritable windfall to the educator who is interested in this problem.

Barnett's discussion of ". . . our frustrating, wonderful, irrational, logical, simple and now universal tongue---the English language. . .," suggests a need for those Anglo-Saxon tool words which occur so frequently in American basal primers. One of Barnett's major points is that since modern English is not highly inflectional, its morphological simplicity may be misleading. In this regard, he illustrates the semantic variations of several of our monosyllabic words of high frequency of use. Their proliferation of meanings challenges credibility.

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The most cursory examination of a basal preprimer or primer in wide adoption in the United States will reveal the extent to which the textbook writers utilize the vital verbs of Basic English. (The monumental vocabulary studies of Dale, Dolch, Gates, and Thorndike show the frequency of use of the same words which Richards and Ogden discovered in their linguistic analyses.) The deriders of the controlled introduction of words in the American primer have termed the resulting context nonsensical jargon. Could it be that what appears to the adult as gibberish is not gibberish to the child at all? Could it be that there are subtle semantic variations in the simple content due to the flexibility of these vital verbs? Is it not possible that the young pupil needs to be inducted gradually into this peculiarity of English?

O'Leary, Helen F. "Preserve the Basic Reading Program," Education, 84 (September, 1963), 12-16

A statement in support of the use of the basic reading series as the most effective instructional program for achieving the goals of the developmental phase of elementary reading.

Helen F. O'Leary is Associate Professor of Education and Co-Director of the Reading Clinic at the University of Massachusetts, Amherst.

The main points which are made by O'Leary in this article regarding the use of the basic reading series are contained in the following statements:

. . . Despite the introduction of many versions of individualized reading instruction plans which tend to displace and discourage the use of basic reader series, and despite the increasing use of multi-level reading kits, this basic series program still continues to maintain its status as the

most widely used and the most popularly known equipment for one important part of an effective reading program--namely, the developmental phase wherein sequential aspects of reading growth are analyzed, recognized, planned for, and carefully, paced through a series of graded readers arranged in levels of reading difficulty.

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In fact, the features which comprise the essential steps in the teaching procedure of a basic reading series correspond to the principal steps in an effective lesson plan for any type of subject-matter presentation.

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... It becomes quite evident that there are ample opportunities for originality, ingenuity, variety, and imagination for the teacher who utilizes all phases of the basic program.

Moreover, instead of disregarding entirely the philosophy behind individualized or personal selection plans for reading, the resourceful teacher incorporates these ideas into a strong recreational or free reading program, another important phase of the total reading program. With the further addition of a functional reading phase, an effective reading program is being planned for and utilized to develop readers for all purposes.

Russell, David H. "The Basic Reading Program in the Modern School," Ginn and Company Contributions in Reading, No. 1. Boston: Ginn: 1962.

A monograph which considers the principles which undergird modern basic readers; their provision for gradual growth, a wide variety of reading activities, and for a complete organization of reading experiences; some of the advantages and, dangers in the use of basic readers; trends in basic reading programs; and methods of using basic readers.

David H. Russell (deceased) was Professor of Education, University of California, Berkeley.

Russell emphasizes the utilization of knowledge of child growth and development in relation to the systematic sequences of learning reading skills. His organization of reading experiences includes a wide variety of reading activities. The listing of advantages and disadvantages of the use of basic readers as well as trends in the reading program, as given by Russell, help to provide a good perspective for viewing this approach.

Most modern series of readers are developed around four main principles which are related to child growth and development.

1. A basic series provides continuity of growth in reading habits, skills, and attitudes through a carefully graded series of reading materials. Vocabulary load, sentence length, style of writing, concepts, and objectives are designed to facilitate an easy, gradual growth in reading.

2. A basic series provides a wide variety of reading activities which are fundamental bases for the many reading situations in the modern school program. . . .

3. A basic series provides a complete organization of reading experiences. If it is truly basic, the series leaves no gaps in presenting and relating the different types of reading a child may do. . . .

4. A basic series provides a content of important ideas essential to school and other activities. . . .

Research in psychology and child development now offers a rather clear picture of how children learn. As never before possible, a basic series of readers can be built on accepted principles and systematic sequences in learning. Such principles as starting at the child's level and providing the satisfaction of achievement are incorporated into modern basic programs. Beginning at the child's level of achievement is fundamental in any readiness work. Sequence in learning is provided by gradual change from the simplest reading materials to those on higher levels of difficulty and interest.

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The modern teacher knows that good reading is a complex activity. Most children learn it rather easily but in so doing they acquire a wide range of abilities. The reading act used to be regarded only as recognition of symbols. Now it is conceived as recognition plus comprehension of ideas, plus critical evaluation of these ideas, and plus, perhaps, doing something about them. In the modern world even the young child soon meets ideas involving people, social institutions, science, geography, and the arts, for example. When these ideas are in books he may want to skim them casually, to note some details of them accurately, or to follow directions exactly. To meet these varied needs, the basic readers themselves must give opportunities for reading a variety of materials in the light of the different reasons a child may have for reading them.

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. . . a basic series must give the child an opportunity to develop a wide variety of skills and abilities needed for reading today. Some of the abilities which are usually developed in a good series are:

1. Ability in defining specific purposes for reading
2. Ability in locating materials.
3. Ability in adjusting the method of one's reading to the purpose for which it is done and the nature of the material
4. Ability in selecting and evaluating ideas
5. Ability in organizing ideas
6. Ability in using the ideas derived from reading

These abilities ordinarily do not appear in the reader itself but are planned and developed in the work and manual materials.

As children acquire some of the six abilities just listed, they gradually discover where they can use different kinds of reading abilities and how one ability may contribute to the other. For example, if the pupil's purpose is to obtain some specific information, he may decide what encyclopedia

or other reference book he needs. Having read the encyclopedia or other article, he must think critically about the information so that he can select and use the most pertinent parts.

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From the pupil's point of view, it means developing the ability to read in a number of different ways depending on one's purpose, and understanding how these different ways are related to one another. Such a process involves years of growth and considerable general maturity before it is fully established. The basic readers are planned so that over a period of years they provide for an organized differentiated approach to reading problems.

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Advantages of Basic Series. Many basic series provide a carefully graded sequence of activities and a variety of experiences related to the child's other reading which can be adapted to the needs of the individual or group within a class. There are, of course, other advantages:

1. A basic series saves the teacher's time not only in the collection of suitable materials but also through its teachers' manual, which provides preparation for lessons and planning of suitable follow-up activities.
2. A basic series provides additional practice for pupils who need it by suggestions in the teachers' manual and by workbooks, both keyed to the materials of the readers. . . .
3. A basic series provides a center of interest around which discussion, dramatization, creative art, and other group activities may operate with consequent growth in language and other social abilities.
4. A basic series often suggests follow-up activities in reading and other areas which stimulate the curiosity of the child and encourage his individual development in terms of hobbies or special interests.
5. A basic series provides a foundation for learning through reading. It seems doubtful that motion pictures, radio and television programs, and phonograph recordings, valuable as they are, will ever entirely replace books as sources of information and enjoyment. Using books, a child can think at his own rate, repeat the learning as it becomes necessary, test his thinking, and make notes for future use--all abilities which can be stimulated through the use of basic books and their accompanying materials.

Dangers in the Use of Basic Readers. On the other hand, there are certain dangers in the use of a basic series. Once recognized, they may be avoided by careful planning.

1. The children of any one class cannot all profit by the same book of a basic series. It is common for children of the primary grades to vary two or three years in reading ability; in the fifth grade it is not uncommon to have children of third-grade reading ability and of seventh- or eighth-grade ability. Accordingly, the practice of assigning only one book to one grade level (as is sometimes still done) is not in harmony with the known facts. Schools must be careful to provide basic readers on different levels of difficulty.

2. A basic series of readers cannot capitalize upon the community environment of a particular school or the interesting news events (local, national, and international) which occur every week. The teacher must be careful to extend the reading program beyond basic books by using materials of community and current interest, thus stimulating her pupils to read materials important to them.

3. A basic series of readers should not be used to make reading something apart from the rest of the school program. After children have established some of the basic skills in reading, it is particularly important to have reading situations which grow out of the other meaningful activities of the class. Reading is not so much getting experience from the printed page as bringing experience to it. Therefore reading materials and situations must be related to the other activities of the children.

4. A basic series of readers may not provide all the reading situations needed by some children. The modern child needs help in reading maps, charts, and graphs. Out of school he reads signs, scans electric meters, spots airplanes, and interprets movies and television programs. If one accepts reading as involving something more than word symbols, growth in such abilities must ordinarily be encouraged in ways outside a basic series of books.

Ten Trends in Basic Reading Programs. As suggested in part by the studies quoted, a few modern trends in basic reading programs are:

1. An increase in variety of content in the basic books. From an almost exclusive emphasis upon religious and then upon "literary" materials, books have changed to include realistic stories of childhood, social-studies materials, fanciful and imaginative stories, and a smaller amount of poetry and classical literature.

2. An increase in the amount of materials in the program for any one grade. A modern basic program may include five or six books in the first grade alone; other grades may have at least two books in the basic programs as well as supplementary related books. . . .

3. A greater emphasis upon readiness at all grade levels. While many more helps are given the first-grade teacher in her readiness program, it is also true that the importance of readiness is stressed at all developmental levels by careful introduction of new material.

4. A more careful gradation of difficulty. This is achieved by such arrangements as few words at the pre-primer level, gradual introduction of new words, adequate repetition of new words, careful initiation into broken lines, direct discourse, paragraphing and other mechanical details, and only slight shifts in style and content.

5. An improved physical format and use of illustrations. Studies of size of type, length of line, quality of paper, and the recent advances in color illustration make basic books so attractive and easily read that they compete with most children's individual story books.

6. Basic series have incorporated the results of much research into teaching methods. Because children are different and the reading process is complex, a combination of teaching methods, with varying emphasis as needed, promotes more efficient learning. A carefully planned phonics program is a part of a well-rounded reading program.

7. An encouragement of a wider variety of purposes and methods of reading. Modern reading series are built on the realization that children may read for ten or fifteen different purposes which grow out of problems the child can solve by reading. Therefore, basic programs encourage a differentiated attack on or approach to different selections.

8. An emphasis upon thoughtful interpretation and application of the pupil's reading. Through the character of the selections in a book and through suggestions in the manuals, pupils are encouraged to think critically about what they read and to make their reading function in other activities.

9. More ways of evaluation growth in reading. A modern series sees a standardized reading test as only one means of evaluation and encourages teacher observation, "home-made" tests, pupils' reactions, and other means of evaluation.

10. A proper perspective on reading is suggested. A modern basic series emphasizes child development, sees reading as one of a number of important learning activities, helps children to judge when it is to their advantage to read, and rather than usurping the place of other worth-while classroom activities, suggests how reading can be combined with them.

Spache, George D. Toward Better Reading. Champaign, Illinois: Garrard Publishing Company, 1963. 470 pp. (Chapter 2, "Is the Basal Reading Program Adequate?")

A summary of six guiding principals for a good foundational reading program.

George D. Spache is Professor of Education and Head of the Reading Laboratory and Clinic University of Florida

Spache emphasizes the importance of systematic instruction toward specific ends. He further emphasizes that reading instruction be related to child development and co-ordinated with other aids to child growth.

What Is a Good Basal Reading Program? A number of authorities have offered what might be considered the guiding principles of a good foundational reading program. Gray . . . and a number of others . . . have stressed the need for systematic instruction continued throughout the pupil's entire school career. This principle would promote flexibility of the instruction to pupil growth in interest, capacity and needs. It would insure recognition of the need for training in critical reading and for effective reading in the content fields, as well as all the other foundational skills.

As Spache has pointed out, this first principle would really be an outcome of the second--that the reading program is directed toward specific ends agreed upon by the whole school staff All-faculty planning would promote greater integration between the goals of successive levels, as well as more careful definition of the school's philosophy and definition of reading instruction. Such planning fosters better co-operation between staff and administration, more constructive supervision, and better informed school-parent relations Dolch's chart for faculty evaluation of the reading program is helpful in this effort

Over-all planning of the reading program would also insure observation of the third principal--that reading is related to child development and must be co-ordinated with other aids to child growth. This principal does not assume that reading growth is an integral outcome of child development, with or without adequate instruction, as some child development authorities seem to believe. Rather, it implies that the reading program will be cognizant of the interests, needs, and developmental status of the pupils, and of their home backgrounds and community influences. Application of this principle would promote the use of reading materials related to the socio-economic and cultural levels of the community and home, rather than those written exclusively for and about an upper-class group. Co-ordination with child development would foster the provision of a stream of first-hand experiences preparing children for reading and the integration of reading with speaking, listening and writing.

All-school planning would lead inevitably to the fourth principle--that readiness for reading is a continuous process Pre-reading activities would constantly prepare pupils for the development of meaning vocabulary and concepts which are essential to progress in reading. Teachers would recognize the obligation to prepare children at all school levels for the words or or verbal concepts which are the heart of reading.

A fifth basic principle is that the reading program must make adequate provision for clinical study and treatment of retarded readers. As long as schools are forced to present reading through mass instruction there will be a sizeable proportion of reading failures. Recognition of this principle will lead to further attempts to meet this problem by special sectioning, homogeneous grouping, corrective and remedial classes, special reading teachers, and diagnostic or remedial centers. The trends toward increasing enrollments, growing birth rates, and prolonged enforced school attendance make provision for the treatment of retarded readers essential in a well-rounded reading program

The sixth essential principle of a reading program stresses the fact that evaluation of pupil progress by formal and informal methods must be a relatively continuous process. All-school planning of this evaluation insures its realistic nature by preventing teachers or administrators from pursuing their personal tangential aims. Such an evaluation plan will lead teachers away from the mechanical application of standardized tests or the excessive use of oral reading as an observation technique. They will learn to use pictorial and graphic records, anecdotal and behavior reports, and various measures of both quantity and quality in independent reading as substitutes for stereotyped formal tests

Stauffer, Russell G. "The Role of Group Instruction in Reading," Elementary English, 41 (March, 1964), 230-34, 250.

An analysis of the opportunities to develop reading skills through group instruction where the emphasis is on purposeful reading.

Russel G. Stauffer is H. Rodney Sharp Professor of Education and Director of the Reading-Study Center at the University of Delaware, the editor of The Reading Teacher, and senior author of the Winston Communication Program.

In the following paragraphs, Stauffer indicates the particular values of group reading instruction:

. . . Individualized and group instruction advocates . . . say that theirs is the pedagogy that is sound and scientific and is based on measures of human growth and behavior. . . .

Both procedures--group-type directed reading activities in which each member of the group deals with the same material, and individualized activities in which each may be reading different kinds of materials--have numerous advantages. . . . (230)

A well-directed group requires a thoroughly educated teacher--skilled in directing the thinking of others, able to remain noncommittal while the truth is being sought, patient during the period of suspended judgment and capable of helping a group reach, test, and defend sound conclusions. In turn, as each pupil in a group examines the same materials, he becomes an auditor for each other pupil. It is in an interacting, face-to-face group that the benefits of clear and honest thinking are best accomplished. To be effective, pupils must be able to examine the acting and thing of others, to challenge their thinking, and yet to be respectful of the rights of others.

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A group-directed reading-thinking activity provides the opportunity to study the problems of individual reading behavior, participation pattern, group development, and individual change. At the same time it can be seen that the work aspects of a well-directed, group-type reading activity are consciously determined, deliberative, reality bound, and goal-seeking.

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. . . Clear thinking in the dynamics of a group situation can be the scalpel that serves a pupil as he cuts through sophistry. Essentially, too, self declared purposes narrow the field of attention and keep it focused on the story at hand. In other words, pupils are much more apt to give attention when resolving the tension of unfulfilled purposes they have declared or helped to declare in a group situation.

B. Language Experience Approaches

The language experience approach has received considerable emphasis recently in the San Diego County schools. However, the use of children's experience and language as a source of reading material in initial reading instruction has long been advocated by Albert Betts. Basal reading programs generally suggest the use of techniques similar to those proposed by Roach Van Allen, based on his experience as the Director of Curriculum Coordination in the San Diego County schools. However, Van Allen would develop the total reading program mainly around the language experiences of the pupils, while advocates of a broad basal reading approach would include this type of experience as one of many techniques in the development of reading skills.

This section contains two references by Van Allen and one by Betts, as well as several others, which describe the nature of this approach and indicate specific strengths which may be advantageous in particular situations.

Betts, E. Albert. Foundations of Reading Instruction Revised edition. New York: American Book, 1954. Chapter 17, "Language Facility."

A chapter which emphasizes the role of oral language in the development of reading ability.

Albert E. Betts was Professor of Psychology and Director of the Reading Clinic, Temple University, Philadelphia, Pa. He is currently Research Professor, University of Florida

Variations in Ability. Facility in the use of oral language is a prime prerequisite to the development of reading ability. Within a given classroom, the pupils will range from those who are glib, overtalkative, and overaggressive to those who are shy, retiring, and awed by the flow of language from their contemporaries. One problem is to get some children to express themselves orally and another is to develop a type of language facility that produces effective communication.

In the past, some children have been frozen in their tracks by teacher who insisted on having an oral language in which the defects of their presentations were made to overshadow the content of what was said. Any resemblance to life situations was purely coincidental. Through emotional conditioning, some pupils were convinced that they should neither be seen nor heard. Such situations are the antithesis of those that can be found in many modern schoolrooms.

Relation between Language Facility and Reading Ability. With very few exceptions, those pupils who have developed a reasonable facility in the use of language are successful achievers in reading activities. While language development cannot be forced, the teacher does have the responsibility of directing the child in his social activities so that maximum language facility is developed systematically. The acquisition of language facility is essential to readiness for reading but it does not insure success.

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Emphasis on the unity of the language arts has been forcefully called to our attention by a number of factors. First, remedial reading--the fad of the 1930's--has been useful in demonstrating that a reading disability is a part, in many instances, of a general language disability. Second, the increasing emphasis on semantics--the likely fad of the 1940's--has further accentuated interpretation as a major problem in communication. This trend appears to be breaking down artificial barriers erected among the language arts. Third, the gradually shifting philosophy of education is making intolerable the positions taken by those who assume that adequate language development can be brought about by the teaching of the language arts as separate "subjects."

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Speech Patterns and Reading Ability. One of the very important but most often neglected facets of language development is that of accurate speech production. Speech habits and auditory discrimination abilities appear to be highly related. Oral language as well as the mechanics of speech production are embraced by a broad view of the problem. In this sense, the development of desirable speech habits is one of the primary goals of language instruction. Speech is an aid in learning to read.

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Relaxation. One of the major problems involved in speech education is that of relaxation. General relaxation is especially important in treating stutters and cases of spastic speech. The child with a high-pitched voice or one who clutters also must be taught how to relax. General relaxation usually will decrease muscle tension in all muscle groups. Often, however, it is necessary to teach the child how to relax the muscles of speech production.

Psychological factors play a dominant role in relaxation. Nervous strain is increased when the child is placed in speech situations for which he is not adequate. The ensuing loss of prestige with his contemporaries often results in being teased and bullied. Then, too, tensions mount when the teacher is excitable, hurried, and impatient. By reducing tensions in the environment, the teacher can control to no small degree the psychological factors in relaxation.

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The major points in this chapter are summarized in the following statements.
I. Oral language facility is the chief basis on which readiness for reading is developed.

II. Other things being equal, oral language facility may be developed.

III. Language development follows an orderly pattern.

IV. In order to teach the child how and when to use language, these skills and abilities should be developed in social situations.

V. Vocabulary should be developed through experience; that is, language must be related to facts, or experience, in order to avoid verbalization.

VI. Children must learn to be good listeners as well as practiced speakers.

VII. During a useful reading-readiness period, the children should acquire a "feeling" for language structure.

VIII. Many defective speech habits may be cared for by the classroom teacher. Extreme speech defects require the attention of specialists.

IX. Because good speech models are highly important, the teacher should appraise her own speech habits.

X. Goals for good speech should be developed co-operatively by the pupils.

Edwards, Thomas J. "The Language-Experience Attack on Cultural Deprivation," Reading Teacher, (April, 1965), 546-551.

An article which presents specific learning needs of the culturally deprived child and suggests the language-experience approach as a means of improving his language facility.

Thomas J. Edwards is Senior Language Arts Consultant for Science Research Association in Chicago, and was formerly literacy adviser to the Iranian Ministry of Education.

Edwards discusses the deficiencies in the development of the deprived learners communication skills and gives suggestions for the improvement of his auditory discrimination, oral expression, sentence syntax and vocabulary.

Ever-increasing attention is currently being directed toward the student whose family and community background has not prepared him adequately to come to grips with the typical school curriculum. Evidence of this lack of readiness for academic success appears early in his school career, and his early frustrations, understandably, frequently lead to his becoming a school dropout.

The problems discussed in the following sections are selected from an unquestionably broader array of problems and are cited because they bear more directly than others upon the development of communication skills and upon general academic success.

Restricted background of experiences and concepts. The child may not have traveled beyond the confines of his immediate neighborhood, and he is not likely to have derived a great amount of meaning from his experiences even in this restricted environment. No one has guided his perception of the things which he has experienced, and he has not had the opportunity to manipulate verbally his ideas about his experiences.

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The important point is this: It is possible to have experience but for this experience to yield very little in terms of a significant body of meaning or concepts. Mere sensory contact is rarely enough. Rather, this contact must be accompanied by a kind of directed perception which will be consummated in the formation of meaningful concepts.

Cognitive stagnation and the challenge to learn. A child who grows up in a severely depressed environment with poorly educated parents and peers is not likely to receive the kind of stimulation to think which would encourage him to flex his cognitive muscles. In a "rich" environment there is frequent dialogue, and language is thus used as the instrument for getting into the thinking processes of the child and stirring them up.

Present-day psychologists and educators are in rather general agreement on the point that cognitive power is quite likely to remain latent or dormant or become stagnant if it is not stimulated Progress in the development of active, precise, and critical thinking ability tends to be slow, erratic, highly specialized, and limited essentially to the very primitive demands of a primitive and highly restrictive existence within depressed communities.

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Oral language deficiency, receptive and expressive. His early language experience constitutes another strike against the culturally deprived student when he is confronted with the traditional middle-class curriculum. Generally, the disadvantaged learner comes from an environment in which either an entirely different language is spoken or from one in which a dialect of English is spoken which is at considerable variance with more standard regional dialects of general American English. He has therefore been exposed to a somewhat different system of speech sounds, to a different cultural idiom, to a modified system of labeling concepts (e.g., "tote" for "carry"), and to a system of syntax of considerable simplicity and one which orders words differently within a sentence

The specific language areas in which the disadvantaged student tends to be significantly penalized include auditory discrimination, vocabulary, and syntax. It might be well, then, to see exactly how each of these serves to militate against school success.

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Vocabulary problems are likely to relate most directly to the very meager repertoire of concepts which the disadvantaged student has been able to accumulate from his extremely restricted background. . . . Beyond this, many of the concepts which he has developed have been assigned special labels (i.e., words) which are unique within his own culture and, hence, are not written into traditional curriculum materials. . . . An additional vocabulary problem stems from the fact that for many of the concepts which he does have, he has no label at all, since he has not communicated very much about them with anyone. . . .

When he encounters a printed word form he has no referent already in his nervous system to which to relate either the sound or the meaning of this printed symbol. And when the density of unfamiliar words is too great--in either spoken or written learning situations--the linguistically disadvantaged learner is really at a disadvantage. . . .

Syntax is the third problem area mentioned above. Here we find the sentence structure with which the disadvantaged child is familiar quite at variance with that of the sentences which he hears or tries to read in school. . . . Both word order and degree of complexity of sentences--particularly in textbooks but also in the spoken language of teacher--are likely to overwhelm the disadvantaged student. This, then, represents both a listening and a reading comprehension problem to the disadvantaged learner trying to operate outside of his dialectical milieu.

The so-called language-experience approach has proved to be an extremely effective technique for approaching the multi-faceted problem of culturally deprived students. Very often, unfortunately, its use is limited to very young children at the beginning stages of learning to read. It has been this writer's experience, however, that it works with outstanding effectiveness with adolescents who are potential dropouts, with functionally illiterate adults, in both individual and group situations, and even with illiterate peasants in Persian villages.

The language-experience approach is versatile, stimulation, informal, interesting, fun, and a real challenge to the alert teacher. In essence, it involves the teaching of an array of thinking and language skills in a discussion setting centering around a topic (preferably controversial!) which is anchored directly in the experiences and interests of the group. From the discussion emerges the subject matter which eventually provides the material for the development of skill in handling written language. . . .

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With the background deficiencies and specific learning needs of the culturally disadvantaged student clearly and constantly in mind, any conscientious teacher can use this language-experience approach effectively to reverse the effects of cultural deprivation and arm the discouraged student with increased language facility, learning potential, and academic self-confidence.

Kellogg, Ralph E. "A Symposium on An Experience Approach to Language Arts: Overview," Claremont Reading Conference, Twenty-Eighth Yearbook. Claremont, Calif.: Claremont Graduate School, 1964.

A summary of the experience approach to the teaching of language arts, as contrasted to the traditional method of instruction.

Ralph E. Kellogg is Director of Curriculum Department of Education, San Diego County, California.

Kellogg lists a sequential pattern of instructions for the language experience program and contrasts its philosophical, theoretical and operational differences with the traditional method.

Present Status. Since the conclusion of the Reading Study Project, teachers have indicated considerable interest in the Language Experience Approach and many are in the process of changing their methodology to this approach. A few school districts have moved to adopt this approach as the one which all teachers are expected to use and have been providing in-service education to help teachers move in this direction.

Experience Approach to Teaching Language Arts. What distinguishes this approach from traditional methods? The name, Language Experience Approach to Reading Instruction, is still not the most appropriate title. The new approach involves the teaching of all the skills of listening, speaking, writing, and reading in the language arts program, not just those of reading. A more descriptive title would be, The Experience Approach to the Teaching of the Language Arts. The significant differences which are incorporated in this new approach as contrasted to the traditional methods of instruction in the language arts are as follows:

The language and thinking of the individual child, based upon his own experience, is the basis for all skill development. The pattern of instruction in the new approach comprises the following sequence, although strict adherence to this order is not demanded of all students.

- . Initially the child expresses his experience in some graphic form such as a drawing, painting, etc.
- . The next tells his experience, which he has portrayed graphically, to the teacher and/or other children.
- . He dictates his story about the picture, etc., to the teacher in his own words. The teacher writes down his words under the story.
- . The next step is for the child to copy his own dictation from the teacher. Gradually he writes his own stories more independently with help from the teacher.
- . After he has written his own story in his words, he then reads his story. His written stories and those of other children in the class become the reading materials of the classroom.
- . Gradually, commercially prepared books are introduced as reading material. The child understands that he can read what others have written to get ideas which he might later speak and/or write about.

Understanding of the alphabet, phonetic analysis, configuration analysis, and structural analysis skills are all introduced in the writing program first and later reinforced in the reading program. Spelling is also taught in the writing program.

Control of vocabulary rests in the language of the individual child as he listens, speaks, writes, and reads rather than in prescribed formulas.

In this approach the language arts are taught as one program so that the development of skills in one area is related to and reinforces the development of the other language arts skills.

Traditional Method. The Experience Approach to the Teaching of the Language Arts can be contrasted with the traditional methods which are used in most school districts throughout the United States. The traditional method tends to be structured around the materials of instruction which are supplied to the classroom teacher. The State-mandated program in California is representative of traditional methods. The California State Board of Education has adopted textbooks in the language arts for the classrooms of the State. . . .

It should be quite apparent that there are philosophical, theoretical, and operational differences between the Experience Approach to the Language Arts and teaching the language arts by the traditional method. These basic concepts of the Experience Approach undergird its entire psychology and logic:

- I. The experience of each individual child is central to his meaning of language.
- II. The control of vocabulary is in each child as he develops power in his language to symbolize his experiences. It is not in lists of "high frequency" basic sight words nor does it rest in results of linguistic analysis of the English language.
- III. The motivation of the child to develop power in language and thought stems from a desire to enhance and develop his self concept, to constantly expand and integrate his "self" which includes an expanding understanding of the physical universe and other human beings.
- IV. The skills of listening, speaking, writing, and reading when taught in an integrated whole serve to reinforce each other in a total pattern of language communication. This approach is "individualized" in the more significant sense of the term because it encourages the "individual" development of personal thought and language.

San Diego County Department of Education. "A Description of Three Approaches to the Teaching of Reading," Improving Reading Instruction. Monograph No. 2 San Diego, Calif.: The Department, 1961.

A monograph which explains the organization and use of the "basic," the "individualized," and the "language experience" approaches to the teaching of reading as perceived by a number of curriculum workers, administrators, and teachers in the San Diego County Schools.

The following statement on the language experience approach from this monograph tells in a concise way the distinguishing elements of this approach, which has been emphasized in the San Diego area:

The Language Experience Approach to teaching reading recognizes in daily practice that learning is based upon the experience of the learner. The development of the language experience approach is founded upon fundamental understandings which are cultivated in the thinking of each child as he lives and learns with other children and adults. The teacher recognizes that each child brings to school a unique language personality. He strives to preserve the individual's personal language at the same time that certain common understandings and skills are being habituated.

The Language Experience Approach to teaching reading requires that each child be given opportunities to work individually with the teacher, in small groups, and in the total class group. In each situation the child is expected to express and record his own thoughts, ideas, aspirations, and ideals as well as to read and understand the thinking of others. His own expression is encouraged through the use of a variety of media such as painting, speaking, and writing.

Student-prepared materials are used as basic sources of reading, along with printed materials which are developed for general reading and the expressed purpose of teaching reading skills. The use of all kinds of books is necessary for the child to get a balanced program of reading and to increase his skills of word recognition and interpretation of reading. The child makes progress in reading and writing through self-expression. He evaluates his progress as he uses materials prepared for teaching reading skills.

Smith, Nila Banton. Reading Instruction for Today's Children. Prentice-Hall: Englewood Cliffs, New Jersey, 1963.

A general textbook on the teaching of reading which contains an excellent summary of the history of American reading instruction.

Nila Banton Smith is Distinguished Service Professor, Glassboro State College, New Jersey, and a past president of the International Reading Association.

In a concise statement Smith sets forth what she believes to be the differentiating characteristics of the language experience approach.

In the Language-Experience approach no distinction is made between the reading program and the program for developing the other language skills. At beginning first grade, the teacher encourages opportunities for creative work with crayons, pencils, and paints, as well as through the medium of language. As a child expresses himself through oral language, the teacher pulls out a sentence or two which sum up what he has said and this short composition is written by the teacher as the child watches. Group compositions are also recorded as the children look on. As the teacher writes she calls attention to items that are important to reading, such as letter formation, association of sounds with symbols, repetition of the same sound or symbol, and the function of capitalization and punctuation. These group compositions are used as a basis for discussion in which letters and words are recognized. Children read these group compositions as well as their own individual compositions.

As soon as a child makes a "commitment," that is expresses a desire to write his own language expression, he is given opportunities to do so, and the teacher now enlarges her role to facilitate growth in all the communication skills. When children become able to write independently they are provided with basic vocabulary word lists as well as with words of general interest. Thus they develop control over a basic vocabulary through their writing experience.

As children develop in reading ability they are given increasing opportunities to read from books for interest and research purposes.

Measured results of this approach are very favorable. From an administrative standpoint the conduct of the experiment is commendable in that teachers using the plan choose to do so, in-service meetings make full use of teacher

discussions, and research in regard to the approach is being made by a reading study committee composed of teachers.

Van Allen, R. "Language-Experience Approach to Reading," Claremont College Reading Conference, Twenty-Fifth Yearbook. Claremont, Calif.: Claremont Graduate School Curriculum Laboratory, 1961.

An article which gives the background of the language experience approach as used in San Diego County, and a description of this approach in an instructional setting.

Roach Van Allen is Professor of Education, University of Arizona, and was formerly Director of Curriculum Coordination, Department of Education, San Diego County, California

In the following section of this article Van Allen describes the language experiences he would utilize as the basic framework for a program of reading instruction:

What Is the Language-Experience Approach? Briefly stated, the language-experience approach is one which brings reading and the other communication skills together in the instructional program. In this approach there is no way, nor any need, to distinguish between the reading program and the development of listening, speaking, and writing skills. The "togetherness" of skill development makes possible the continuing use of each child's own experience background and thinking as he grows toward reading maturity.

More than other approaches which have been described at the classroom operational level, the language-experience approach uses the thinking of individual children in the development of materials which promote skill development. It is called the language-experience approach because teachers use as a major guide a listing of language experiences which were selected during our study as ones which must be developed as much as possible in order to assure effective communication in a democratic society--a society which values divergent thinking and creativity.

The language experiences which have been selected for the basic framework of the program are ones which, when implemented at the classroom level, require the selection of learning experiences which generate productive thinking, allow freedom of expression, stimulate individuality, value ingenuity, satisfy curiosity, and promote personal satisfaction to the extent that learning to read becomes a lifelong experience which requires ever-maturing and more complex skills and knowledge. These language experiences may be described as follows:

1. Sharing experiences--The ability to tell or illustrate something on a purely personal basis.
2. Discussion experiences--The ability to interact with what other people say and write.
3. Listening to stories--The ability to hear what others have to say and relate it to their own experiences.
4. Telling stories--The ability to organize one's thinking so that it can be shared orally or through dictation in a clear and interesting manner.
5. Dictating-- The ability to choose, from all that might be said, the most important part for someone else to write and read.
6. Developing speaking, writing, and reading relationships--The ability to conceptualize reading as speech that has been written.

7. Making and reading books--The ability to organize one's ideas into a form that others can use and the ability to use the ideas which others have shared through books.
8. Developing awareness of common vocabulary--The ability to recognize that our language contains many common words and patterns of expression.
9. Expanding vocabulary--The ability to expand one's vocabulary through listening and speaking, followed by writing and reading.
10. Writing independently--The ability to write one's own ideas and present them in a form for others to read.
11. Reading whole books--The ability to read books for information, recreation, and improvement of reading skills on an individualized and personalized basis.
12. Improving style and form--The ability to profit from listening to and reading well-written materials.
13. Using a variety of resources--The ability to recognize and use many resources in expanding vocabulary, improving oral and written expression, and sharing.
14. Reading a variety of symbols--The ability to read symbols--the clock, calendar, radio dial, and thermometer--in their total environment.
15. Studying words--The ability to find the correct pronunciation and meaning of words and to spell the words in writing activities.
16. Improving comprehension--The ability, through oral and written activities, to gain skill in following directions, understanding words in the context of sentences and paragraphs, reproducing the thought in a passage, and reading for general significance.
17. Outlining--The ability to use various methods of briefly restating ideas in the order in which they were written or spoken.
18. Summarizing--The ability to get the main impression, outstanding ideas, or the details of what has been read or spoken.
19. Integrating and assimilating ideas--The ability to use reading and listening for specific purposes of a personal nature.
20. Reading critically--The ability to determine the validity and reliability of statements.

These language experiences become the major framework within which children learn to read. It is obvious that the ones at the top of the list require less maturity on the part of the learner and less background of experience than those at the end of the list. It should be equally obvious that this program is not conceptualized as a "reading period" during the day; rather, it might be described as the glue that holds the program together. As the program develops, it gives depth of meaning to art and construction activities; it is the vehicle for conveying meanings of social studies emphases; it encourages exploration and discovery in science and mathematics; it builds spirit and understanding into singing of songs and playing of games. It places the "creative thinking process" at the heart of the instructional program.

Van Allen, Roach. "New Approach to Reading Study Project." Wilson Library Bulletin. 39 (October, 1964), 154-59.

A description of the language experience approach to teaching reading with a summary of the results of the San Diego Project which evaluated three different approaches to reading instruction.

Roach Van Allen is Professor of Education, University of Arizona, and was formerly Director of Curriculum Coordination, Department of Education, San Diego County, California.

In the following statements from this article, Roach Van Allen briefly describes the language experience approach and indicates some of the results of the San Diego Project.

Teachers and administrators in San Diego County, California, and many other places are convinced that there are ways of working with children to help them move into reading as a natural, normal extension of their own language experiences. Such methods are called the language experience approach in reading instruction.

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Results of the San Diego Project

1. There are many effective ways of teaching reading in our schools. Teachers using all three approaches obtained "better than average" results as measured by standardized reading tests.

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2. All three approaches were improved when teachers participated in a quality in-service education program.

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4. The way a child sees himself as a reader is a much greater factor in reading achievement than the use of any specific method of reading instruction. Therefore, any approach which seeks to involve the learner in a meaningful way will effect good achievement for the largest number of children.

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6. The level and quality of social interaction between teacher and pupils has as much to do with achievement as the method used. Children who really understand what they are doing develop higher reading competencies, regardless of the method employed. Teachers should employ approaches which promote the highest level of teacher-pupil interaction.

C. Individualized Approaches

The ardent enthusiasm expressed by proponents of completely individualized reading programs several years ago has been somewhat tempered today. More recently the trend in thinking regarding this approach has been that individualized reading activities should be combined with a comprehensive basal reading approach.

References in this section call attention to some specific advantages, as well as a number of limitations of individualized approaches. The evaluations of research studies in this area by Dolch, Sartain, and Russell and Fea are especially worthy of consideration.

Beller, Marion. "The Reading Conference in the Individualized Reading Program." Unpublished Master's thesis, University of California, Los Angeles, 1963.

A study which evaluates the procedures in individualized reading conferences in relation to systematic development of critical thinking skills and in relation to the total reading program.

Marion Beller is Upper Academic Supervisor, Area West, Division of Elementary Education, Los Angeles City Schools.

The conclusions reached by Beller as a result of observation and analysis of a number of individualized reading conferences are as follows:

Recent studies agreed that the two important qualities necessary for creativity and inquiry, imagination and curiosity, may be dulled when there is routinization of educational methods. Pupils must give their answers through creative inquiry rather than by routinized feedback. These studies also pointed out the fact that children learn through non-directed as well as directed periods of instruction. Reading is an individual and personal experience. It is the interaction between the individual child and the author's ideas. The child's interpretation of the author's ideas contributes to the child's daily life.

In the individual conference the child takes greater cognizance of his own role in his own learning process. The creative teacher recognizing that a child's interest is a great motivating and sustaining factor in learning, encourages the child and helps him to learn any necessary skills to complete his experience. She further capitalizes on the child's interest to help the child to act independently, to manage himself, to select his own material, to seek and explore his reading environment, and to read at his own pace material he has chosen independently. At times children need specific drill and practice in the development of certain basic reading skills. Each child is taught the reading skills when he needs them. Therefore, he sees them as important and worth achieving.

While evidence is not available from controlled research, observation would seem to indicate:

1. Individualized Reading sets up a flexible and creative class environment which opens up for children the world of word meanings, idea meanings, and the individual's own interpretation of ideas.
2. Through the individual conference the teacher may systematically help the child learn the needed skills.
3. Through the individual conference teachers use more flexible approaches in their methods of developing the reading skills.
4. Through the individual conference the teacher works with the individual in a one-to-one relationship affording the teacher the opportunity to "know the child."
5. Individual reading provides effective reading instruction and affords a tremendous opportunity for developing the love of reading and to make permanent readers.

Dolch, E. W. "Individualized Reading Vs. Group Reading," Elementary English, 38 (December, 1961), 566-75; 39(January, 1962), 14-21, 32

A two part article which defines in detail the nature of individualized reading, evaluates the results of experiments which compare individualized reading with group reading, and suggests the probable role of individualized reading in the future.

The late E. W. Dolch was Emeritus Professor of Education, University of Illinois.

After defining individualized reading and describing organizational techniques which may be used with this approach, Dolch evaluates the results of research studies in individualized reading in terms of "five requirements for good school research."

Individualized reading implies at least five different things. First, the children are at their seats or at reading tables. They are not in a group before the teacher. Second, each child has a different book--a book that he himself selected. This is very different indeed from the group system, with each child having the same book, open at the same place.

Third, each child receives individual help from the teacher or a teacher's helper, the help that he needs just when he needs it. This is very different from the method of giving help to groups, which assumes that most or many of them need the same thing at the moment. Fourth, the individualized method of teaching reading always assumes a "sharing period," during which each individual child shares something of what he has learned with other children, either the whole room or part of it.

Fifth, individualized reading always assumes that certain skills have to be taken up with the class as a whole, or in a group session with the part of the class which needs to learn the skill. The group method of teaching reading also uses such sessions for special skills, such as sounding skills. These "special need" groups are recommended, of course, for all teaching of reading.

We have a good many experiments in comparing individualized reading with group reading, but we need to remember, in considering all of them, the five requirements for good school research.

1. Compare equal teacher, working equally hard.
2. Compare children of equal background and equal intelligence.
3. Be sure there was equal time and emphasis.
4. Watch the size of class.
5. Beware of misleading averages.
6. Watch for unmeasured results.

Suppose we look at the individualized reading experiments from this point of view. First, we cannot compare teachers using this method with the record of average teachers as shown in a national norm. Undoubtedly the teachers experimenting with individualized reading were good teachers and worked very hard. National norms do not come from such hard work. Instead we need to consider what would result with these same teachers, working equally hard with groups.

Second, individualized reading has been used almost entirely in favored schools, where the children are of exceptional ability and background. Such children are highly motivated. They love to read. The individualized method works. But what about children from homes hostile to the schools who hate reading and the school? We really do not know what happens with these children. Perhaps if individualized reading got started with them, they would do much better. But could one start it?

Third, daily schedules of equal time are misleading. In so many schools they say a child does "an hour's work on reading a day," when they mean he is 20 minutes before the teacher, 20 minutes with a workbook in front of him, and 20 minutes with a book at his seat. Is this 60 minutes of highly motivated reading such as the 60 minutes of individualized reading with an interesting book of his own level of difficulty and with a teacher to help any moment?

Likewise, a teacher who starts individualized reading makes a project of it into which all the children enter. They are enthusiastic. So they work hard. Are all the children in the three-group plan enthusiastic? So we do not really find equal time and emphasis in the studies.

Fourth, all records of studies are in averages. This is misleading because we are concerned with every last child, from the top to the bottom. Of what value is it if the average goes up, but some children at the bottom sink even lower into failure? Likewise, any system which liberates the fast to read ahead and improve their skill, will raise the average of the group, even if it is only the fast ones who improve. So averages must be received with care, and we must examine the full range from the slowest to the highest.

Fifth, the one big unmeasured result of individualized reading, they tell us, is that children become enthusiastic about reading. But we have no test to measure enthusiasm for reading. Likewise, the one big drawback of the group system, they say, is the discouragement of the slow. But is there a test for discouragement? There is also the social side of reading, on which we have commented. There is no test for this, and so if individualized reading changes the social feeling, we can never tell it from tests. Finally, which method is harder for the teacher? We have no test for this. So let us always watch for unmeasured results.

Making allowances for all of this, experiments on individualized reading always show some favorable result in reading scores for the individualized method. We need to know if this is true for all teachers and all kinds of schools, for all kinds of children, for the fast and also the slow, and after a period of time when the first enthusiasm has had time to wear off. We also want to know more about the "side effects" of both kinds of reading.

Of one thing we can be sure, however. The method of individualized reading surely needs many and long-continued tryouts and study. There is so much good to be said about it, regardless of criticisms. But this does not mean it will be, or that anything will be, the one and only method of teaching reading. It seems likely, instead, to take its place in the repertory of the skilled teacher of reading, and as such to give valuable results for the children.

Evans, N. Dean "Individualized Reading--Myths and Facts," Elementary English, 39 (October, 1962), 580-83.

An article which discusses the theory of individualized reading, the results of research regarding this approach, and suggestions concerning how reading should be taught in a balanced program.

N. Dean Evans is Assistant Superintendent, Delaware County Schools, Media, Pa.

Writing as a person who in 1953 authored an article which favored complete individualization of reading instruction, Evans now reviews the theory of individualized reading in the light of the few valid research studies in this area, and suggests techniques for individualization of instruction in a balanced program.

The Theory of Individualized Reading. Primarily, the reading program is organized so that all pupils read independently rather than in regular reading groups. Trade books chosen by the pupils are the basic reading materials. Self-selection of books is a key feature of individualized reading. Each

child reads at his own pace and keeps a record in his notebook of the book he reads.

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What Does Research Say? Let us see now if research and critical classroom experience validate the enthusiastic claims made for individualized reading by its supporters.

First, there is relatively little controlled research data available. This fact, however, has not deterred various enthusiasts, (including the author in his earlier writings) from making extreme and unsubstantiated statements in favor of complete individualization of reading instruction.

Sartain reports on one of the very few valid studies: "In summary, because this study and others that have been carefully controlled show that the individualized method does not produce better reading gains than a strong basal program, there is no reason to forfeit the advantages of a well-planned basic system. Instead the benefits of the individual conferences should be obtained by their addition to the basic reader plan." . . . In another conclusion based on a summary of the limited research, Witty, Coomer and Sizemore write: "It may be readily concluded that available experimental data do not justify the recommendation of sole dependence on individualized reading. The experiments appear generally to be inconclusive and to lack sufficient provision for variable factors which may influence results." . . .

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How Should Reading Be Taught? Individualization of instruction is a worthy goal and it can be achieved to a great extent by some experienced, dedicated, master teachers, operating under very favorable circumstances. However, in the modern elementary school, there are many practical considerations:

1. The number of children in a class and their ranges of ability and interest.
2. Teacher skill and experience varies widely. The inexperienced teacher is lost in a completely individualized program and so are the children.
3. Teacher time for preparation, record-keeping and actual teaching is a big factor. An elementary teacher must plan seven or eight subject periods per day.

And so, despite the cries of those who insist that there can be no compromise --that every teacher must completely individualize, there are some level heads. It would surprise some of the tub-thumpers to know that Betts reported various individualized reading plans many years ago, including Lethal Kiesling's first grade experiment in 1938. . . . Betts has said, "There are few, if any, educators who would question the value of individualized instruction. However, there are many who would advance substantial reasons against any plan for . . . complete individualization . . ."

Botel has advanced a most sensible proposal for the teaching of reading: "What is needed . . . is a 'total approach' to reading . . . a plan to integrate the finest materials, methods, organizational plans, and in-service education into a unified package." . . .

A balanced program will include, therefore, the following:

1. Sequence and continuity of skill and vocabulary development, involving basal readers and other aids two or three days per week, with

the children diagnosed and grouped by levels. (Experienced teachers may use co-basals or other materials.) Reader stories need not be dull. Good motivation depends on the teacher at any time.

2. Wide reading, A good library is essential, with each child having a book of his own choice at all times. Free reading at the independent level is important, but assumes that skills have been taught which enable the child to unlock new words and to understand what he is reading. Each child should read as widely as possible in books he selects himself.
3. Some individual and small group activities, such as teacher-pupil conferences, sharing of reading experiences, independent work on vocabulary and reading lists, and literature appreciation.

Thus, all of the purported advantages of the individualized reading program can be combined with the proven benefits of good group instruction, where there is much learning in the sharing of ideas and in group interaction. A good, well-balanced reading program is not either individualized or group-oriented. It is both. As teachers grow in experience and competence in the skills of reading instruction, they should individualize their programs as much as possible, considering all of the problems discussed.

Fox, Gudelia A. and Raymond B. Fox. "Individualized Reading Controversy," National Elementary Principal, 44 (September, 1964), 46-49.

A description of the components of individualized reading programs, their advantages and disadvantages, and recent research findings regarding this approach.

Gudelia A. Fox is a second grade teacher in Sycamore, Illinois. Raymond B. Fox is Professor of Education and Head of the Education Department, Northern Illinois University, De Kalb, Ill:

An objective analysis of the strengths and weaknesses of individualized reading programs has been set forth by Fox and Fox. They cite considerable evidence and opinion which indicate that good reading programs should include both individualized reading and basal reading instruction.

For several years, proponents of individualized reading programs have been waging verbal warfare with the supporters of basal reading programs. Each side contends that its approach develops better readers. Unfortunately, both sides seem to base their claims upon subjective judgments and personal preferences rather than upon objective evidence and research findings.

The relatively few research studies which have compared the reading achievement of experimental groups using an individualized reading approach with that of control groups using a basal reading approach have almost invariably found that there were no statistically significant differences. . . .

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Proponents of individualized reading, such as Veatch . . . , Miel . . . , Brogan and Fox . . . , Parkin . . . , and Frazier . . . , claim two major advantages for individualized reading. They contend that individualized reading provides for individual differences and develops the child's desire to read.

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Just as there are many writers who strongly favor individualized reading, there are also many who are strongly opposed to it. Harris . . . believes that the carefully controlled sequence of books and vocabulary needed for early training in reading cannot be achieved by the individualized method.

Bond and Wagner . . . also have doubts about the individualized approach. They find it difficult to conceive that so permissive a reading atmosphere can provide for basal reading instruction in the skills and abilities essential to mature reading. They believe that reading is a complex process that the very nature of individualized reading tends to indicate that instruction would not be systematic. They also question whether young children can sustain their interest for the long periods of time needed to work alone.

Heilman . . . and Russell . . . also question the value of individualized reading. They list the following additional disadvantages: 1) Individualized reading is based on the fallacious assumption that illogical procedures are part of the basal reading program; 2) The individualized program demands unusual teacher ability; 3) The required recordkeeping places a heavy burden of clerical work on the teacher; and 4) Many children are too immature to make wise selections of the materials which they read.

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Available evidence does not justify the claim that individualized reading instruction produces greater gains in reading achievement than a basal reading program. Both approaches seem to have distinctive advantages. Therefore, the most prudent course of action for the teacher would seem to be to utilize a combination of the two approaches.

Several writers . . . have criticized the "either individualized reading or basal reading" approach. They believe that although there are some elements of individualized reading that are desirable, there are other factors which a program of basal reading provides that cannot be met by an individualized approach. Consequently, they favor a combination of the two approaches. They contend that such a combination provides many and varied reading opportunities for children and, at the same time, provides them with a systematic program of skill development.

Stauffer . . . enumerated several advantages to be gained by using a combination of the two approaches, and he also gave insights into what the teacher must do if he adopts a combination approach. Veatch . . . recommended that teachers who are uncertain of the individualized approach or who lack adequate materials for an entire class should begin by having one child choose his instructional materials and then gradually extend this approach to a group.

Unfortunately, there is no panacea for the difficulties which teachers encounter in attempting to teach children to read. The teacher who is concerned only with the development of reading skills will not achieve the objectives of a good reading program, nor will the teacher who is concerned only with development of favorable attitudes toward reading. For that reason, a good reading program should consist of both individualized reading and basal reading instruction. It will be interesting to see what future research has to say on the subject.

Olson, Willard C. "Individualized Approach," in Current Approaches to Teaching Reading. NEA Elementary Instructional Service. Washington, D.C.: National Education Association, 1965.

A brief description of the individualized approach, the axioms in back of this approach, and a general evaluation of the results which should be expected through its use.

Willard C. Olson is Professor of Education, University of Michigan.

In this statement on individualized instruction, Olson summarizes the essential characteristics of this approach, and indicates that it produces results which are competitive with other methods.

The individualized approach to reading finds more guides to practice from within the child than from extrinsic considerations of learning or reading method. Individualized methods are natural out-growths and theoretical extensions of the results of developmental studies. Most practitioners of individualized instruction use a multiple approach.

Back of practices are axioms noting that sequences of development are uniform, rates are highly variable, and individual differences are inevitable. By the time children enter kindergarten or first grade they will differ by several years in readiness for reading. As children grow into the culture, they learn speech without formal instruction. Similarly, more rapid growers are advanced in elements of the reading process before they enter school. By five years of age some children are reading.

In individualized reading the teacher continues a cultural approach. Appropriate books for browsing are available from the beginning. There is conversation, storytelling, and reading aloud. Simple labels and sentences help to identify things or experiences. The teacher will provide in the classroom, often with child participation, a supply of books varied in range of difficulty and interest. Ideally, there will be access to a larger supply. From the books children will seek according to their readiness, needs of the moment, and general interest. Rapid growers will seek many and difficult books, and slow growers, few and simple ones.

The individualized approach emphasizes success and satisfaction for the learner and asks for constructive language and approval techniques from the teacher. The teacher has no common expectation for children and little faith in effectiveness of grouping or special methods designed to have children learn more, earlier. Formal remediation is expected to be effective only in instances of earlier deprivation. Forcing methods are expected to result only in equivalence at a later period.

It is impossible to claim tested superiority for any method. Individual differences persist because of such factors as selective uptake, retention, and utilization. Sustained motivation and satisfaction are characteristic of flexible approaches.

The emphasis on the dynamic concepts of seeking, self-selection, and pacing may be expected to produce results that will be competitive with those of other methods...

Russell, David H. and Henry R. Fea. "Research on Teaching Reading," in Handbook of Research on Teaching, pp. 865-928. N. L. Gage, editor. Chicago

A chapter which summarizes the historical background of reading instruction, teaching identification and recognition, teaching meaning, comprehension according to the purposes of the reader and according to subject-matter fields, classroom organization, and other aspects of reading instruction.

David H. Russell (deceased) was Professor of Education, University of California, and Henry R. Fea is Professor of Education, University of Washington.

In the section of this chapter on individualized programs Russell and Fea review a number of research studies on this approach and conclude that studies of class organization have had three main weaknesses.

Research in individualized programs has been largely of the "testimonial" type. Although the sincerity and industry of individuals initiating individualized approaches is not in question, the situations contain too many variables for evaluation of results. Examples of such activities are those of Duker (1957) and Jenkins (1957). Continuing studies of various phases of independent reading in primary grades were reported by Schatz, et al. (1960), and in junior high school by Fisher (1958).

Research in individualized organization for reading by Anderson, Hughes, and Dixon (1956) compared a laboratory school individualized program with a basal reader program in another school. The basal reader group achieved higher levels of competence. Kaar (1954) reported results of reading instruction in third grades in two communities, one individualized and one using groups. The group procedure yielded slightly greater gains in vocabulary and comprehension after six months. Walker (1957), in a study of two groups of intermediate-grade children matched for reading ability, IQ, and socioeconomic status, and taught by supervised student teachers, reported no significant differences between the children taught in groups and those taught by an individualized approach.

Bohnhorst and Sellars (1959) reported a study of individualized instruction in the primary grades of one school. The first half of the year was devoted to group work followed by eight weeks of individualized instruction. Although no significant differences appeared, gains were somewhat higher during group instruction; teachers who participated were of the opinion that individualization might benefit the more able readers. Sartain (1960) investigated the relative merits of teaching Grade 2 pupils for three months by an ability-group (basal-reader) approach or an individualized self-selection approach, and then reversing methods for the next three months. Except in advanced word recognition, significantly greater gains were made during the first three months regardless of method. The only significant difference between methods of organization was found for individuals of lower ability whose gains on word recognition tests under grouping were superior to those under an individualized approach.

Safford (1960) studied the results of seven elementary classes which had been taught by individualized methods of self-selection and instruction. Presumably the classes were representative or "normal" in ability level, but no evidence was cited on this matter. Results of reading tests showed the seven classes had made gains considerably below national or district norms. Safford also found that individualized programs resulted in no significant difference in growth between reading vocabulary and reading comprehension and that

individualized programs showed no significantly different results with superior pupils than with average pupils.

In conclusion, studies of class organization have had three weaknesses: The number of uncontrolled variables has made any assigning of a specific cause for an effect a matter of conjecture; the objectives of organization have not been defined, and therefore it is difficult to determine what is being evaluated; and the various organizational patterns have many common factors (i.e., grouping is used in individualized programs, and individual instruction is used in grouping). Perhaps a more fruitful subject for investigation would be the proper class organization for the different behaviors required for reading, as was suggested at the beginning of this section. It might be revealed that growth in different reading abilities is dependent upon versatility of class organization.

Sartain, Harry W. "The Place of Individualized Reading in a Well-Planned Program," Ginn and Company Contributions in Reading, No. 28. Boston: Ginn, 1961.

A monograph which defines individualized reading and discusses difficulties in a wholly individualized program experimental evidence on individualized reading, adding individualized reading to the basic program, and organizing combined programs.

Harry W. Sartain is Director of the Laboratory School, University of Pittsburgh.

Sartain points out that the term individualized reading is used to cover a wide variety of practices. He indicates that claims have been made for individualized reading which are not supported by research. However, he also recognizes some of the worthy qualities of this approach.

What Is Individual Reading?

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Individualized reading is not so much a method as it is a different organization for the utilization of time and materials. It is not really new, but has been vigorously reemphasized and expanded as a reaction against the misuse of instructional materials by many teachers. Among these pedagogical sins have been: (1) limiting the reading program to one series of basic textbooks; (2) assigning all children in a class to read the same stories at the same rate; (3) requiring whole groups to follow in their books while individuals read aloud; (4) failing to utilize the skills program of the teacher's manual in a flexible manner to meet the differing needs of pupils; and (5) employing practices which cause children to feel a stigma resulting from placing in reading groups. All of these procedures have been condemned by most reading authorities, but they persist where the teacher is uninformed or is afraid to make changes.

The individualized approach is characterized by several particular features. There is, however, tremendous variation from school to school in the actual practices. Usually self-selection of materials is emphasized. From a large collection, each child chooses a book which he wants to read. This may be a basic reader, a supplemental reader, or any trade book. Most instruction is provided during conferences between the teacher and each individual pupil. Teachers report that conferences may last from one to ten minutes. They are held between one and five times a week, but the ten-minute type can rarely be held more than once or twice weekly. During these brief conferences, the

teacher discusses the child's story with him, listens to oral reading, and teaches detailed word-analysis skills. He offers guidance in comprehension techniques, work-study skills, and adaptation of rate of reading to materials and purposes. He leads the child to understand the qualities of good literature, while influencing him to continue reading in additional books.

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Difficulties in a Wholly Individualized Program. Many of the recommendations from the proponents of individualized reading are sound, but a few people become so carried away by their enthusiasm that they make claims which are not supported by sound research and exemplary experience. One of these is the contention that a controlled vocabulary in early reading instruction is of no value. Some of the earliest research in psychology proved the need for repetition of experience to insure permanence of learning. Although continued experimentation has refined the definition of experience, the necessity for re-experience in routine learning has never been contradicted. Vocabulary control also guarantees a gradual increase in load. The person who feels that this is not important should study a foreign language for one semester and then try to skip to the third semester's work. Although progress is still possible, the rate of growth and the enjoyment of the study are sharply reduced when one becomes hopelessly swamped by strange vocabulary.

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Another questionable argument is that there is no need to introduce reading skills in sequence. It is undoubtedly true that the sequences established in basal programs are not as perfect as they could be if more research were done. It is also evident that every child may not profit most from following exactly the same sequence. However, the established sequences of skills do have two values: (1) they guarantee that no essential skill is omitted, and (2) they offer logical developmental steps in learning. Psychological research reveals that a complex understanding cannot be fully attained at any single age. Instead, it grows gradually through increasingly comprehensive experiences gained at various stages of maturation. Thus the well-planned teacher's manual begins early to help a child distinguish the main theme in a paragraph and develops this into skill in making detailed outlines at later levels. Likewise it is logical to teach the simple consonants before the multiple-sounded vowels; the ability to evaluate relevance of material will precede ability to detect an author's bias; and alphabetizing of words must form the foundation for advanced use of references. Although some individualized reading programs attempt to teach skills thoroughly, the descriptions of others suggest an awkwardly abbreviated or very haphazard arrangement. One might seriously doubt the physical possibility of thoroughly teaching thirty separate skills programs in the time available to one teacher in any classroom where an individualized approach is used.

Self-selection, a fundamental principle of individualized theory, has considerable merit. Even this procedure, however, should bear careful scrutiny. It is true that children must be free to browse among piles of interesting books and read them at their own rate and for personal pleasure. But is it wise to nurture only one interest? When a child is interested only in cowboys, will he ever discover imaginative tales, autobiography, informative travel accounts, science fiction, or poetry? A well-planned basic program helps the youngster sample all kinds of literature; then it frees him to explore along the varied avenues that are open to him.

The proponents of individualized reading offer numerous recommendations which are worth while, but teachers and curriculum workers must also be aware of weaknesses in the claims discussed above. Careful consideration leads one to the conclusion that these claims have been offered to offset the obvious faults of the wholly individualized reading approach. The person who is eager to further a cherished cause is sometimes blinded to its shortcomings. As enthusiasts seem to feel that their chief opponent is the established basal reader program, they cast the roughest stones in that direction.

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Some Experimental Evidence on Individualized Reading. Individualized reading has a unique and worthy quality. The personal nature of the conferences between the pupil and the teacher has a highly salutary effect on the child's attitude. He feels that the teacher is interested in him as an individual as well as in what he is reading. He responds to the teacher's encouragement, and, according to most reports, he reads considerably more.

Unfortunately this great strength is offset by a serious weakness in individualized reading--inefficiency. The most conscientious teachers find themselves frustrated in their efforts to schedule as many conferences as the children really need; often they feel that they can take time to teach only a part of the needed skills. They have doubts about the permanence of learnings which are not systematically reviewed. They spend an inordinate amount of time in preparing ten to fifteen individual reading skills lessons each day, and then feel that they are forced to present them somewhat superficially because of time limitations. . . .

Some capable teachers who have experimented successfully with a totally individualized program, have preferred to return to basal reading in small groups or to a combination of procedures. They usually find that their classes can be divided into three to six groups of children, who are able to learn and utilize new skills at approximately the same pace. The planning for six groups can be far more thorough and systematic than that needed for thirty individuals. More important, it permits the teacher to introduce the new words and concepts which the children need in order to read with maximum comprehension and pleasure. The discussion of stories read by a group deepens the children's insights, critical reading abilities, appreciation of literacy qualities, and ability to express reactions acceptably to others. All these attributes of basal instruction in small groups attest to the greater efficiency of this type of organization over the totally individualized approach.

In brief, it can be said that the individualized system has one outstanding strength--the personal pupil-teacher conference, and one tremendous weakness--inefficiency. Most statistically controlled experiments have revealed that capable pupils with the aid of well-educated, experienced, and dedicated teachers, can learn to read approximately as well in the individualized way as through basic grouping. . . . Since not all children are of good capability and not all teachers organize well the work of thirty children, it would seem unwise to recommend that all classes utilize the individualized plan. It will be much more fruitful to combine the best features of individualized reading with the proven practices in basal work.

D. Phonic Emphasis Approaches

There are many divergent approaches which emphasize the use of phonic skills in learning to read. The authors of these approaches usually stress memorization of phonic elements and rules through the use of repeated practice. However, the sequence of steps and methods vary widely, as is pointed out in the reference in this section by Spache. Authors of materials which employ phonic emphasis approaches have claimed amazing results through the use of their materials. For example, May Carden is reported as stating that schools using her system did not have any nonreaders, nor any retarded readers, and that children with IQ's as low as 75 are regularly taught to read.

In contrast to phonic emphasis approaches, basal reading programs generally make provision for the sequential development of phonic skills and other word perception skills along with other types of reading skills. In basal materials there is greater emphasis on purposeful reading of stories which are meaningful to the pupil. Phonic analysis and other word perception skills are developed in relation to the vocabulary which is used in the story being read. In this way phonic skills are taught in relation to their need in recognizing words in a meaningful content. While there is some variation in the sequence and the level of introduction of phonic skills in basal reading programs, they are not as divergent in their approach as are various phonic emphasis approaches.

References in this section review the results of research on the use of phonic emphasis approaches, and suggest procedures through which phonic skills may be taught effectively.

Betts, Emmett Albert. Foundations of Reading Instruction. Revised edition. New York: American Book, 1954. (Chapter 24, Vocabulary Development).

A chapter in an authoritative text on reading instruction which considers word recognition, systematic sequences of vocabulary development, word analysis, and dictionary skill.

Emmett Albert Betts is Research Professor in Education at the University of Florida.

The following statements describe Betts' view of the place of phonics in the reading program:

1. A systematic program of phonic instruction may benefit some pupils.
2. Phonics is only one of the possible aids to word attack skill.
3. Reading readiness programs involving initial reading capabilities and attitudes must precede instruction in phonics. Phonics instruction begins when the need is indicated.
4. Recognition of some words is not possible through phonetic analysis.
5. The structural analysis skills, especially syllabication, should be strengthened through ability in phonetic analysis.
6. Equal instructional emphasis between phonics and other word recognition aids should be carried out at primer, first reader and second reader levels for the children who demonstrate a need for this type of help.
7. Isolated word drills in phonetic analysis cannot be justified in the reading program.
8. That phonics has a place in the reading program cannot be denied.

Cutts, Warren G. "Phonics in Beginning Reading," School Life, 45 (January, 1963), 8-11.

An article which contains many specific suggestions regarding phonics instruction in beginning reading.

Warren G. Cutts is specialist for reading, Division of Elementary and Secondary Education, U. S. Office of Education.

Cutts stresses the use of phonics as an important aid in word recognition, but cautions against excessive use of phonics in initial reading experiences.

Although no other single aid to word attack is so important as phonetic analysis, advocates of pure phonics in beginning reading overlook an extremely important consideration: In order to use phonics in unlocking new words it is necessary for children to make generalizations. In other words, they must proceed from the specific to the general case and then back to the specific. Some very bright children are apparently capable of generalizing from only one or two examples; others of lower mentality have trouble in generalizing even after repeated examples.

A number of studies have shown that children need to have a mental age of at least 7 years in order to profit fully from formal instruction in phonics and that systematic phonics instruction should be postponed until then. Although educators are not in complete agreement on this point and generally are reluctant to determine readiness by hard and fast rules relating to either chronological or mental age, the best evidence available is that most children are not ready to take full advantage of phonics as an aid to word attack until they are in the second grade.

Ear training, which is fundamental to children's learning to understand and use phonics, should be introduced much earlier. In fact, as early as kindergarten, children can be taught to identify beginning sounds (for example, cat, cub, car, cake; box, boy, buy, and book; make, mother; and rhyming words) and to distinguish between sounds produced by different materials (for example, wood on wood, metal on metal, and others).

The first-grade teacher should continue work on the fundamentals of phonics throughout the year. She can help her pupils develop the visual perception they need for reading by teaching them to identify and name the letters. She might have them find all the words beginning with a certain letter in a newspaper article; they might, for example, circle all the a's or cross out all the m's or p's. She would, of course, make sure that they learned the names of each letter as they went along.

Once pupils have learned the names of the letters, the teacher has a convenient label for symbols and can more easily designate a word or a part of a word to which she wishes to direct their attention. But the knowledge is more important to the pupils, for it is an aid to their visual perception and helps them distinguish between words of similar form.

In essence, phonics instruction should be planned in gradual steps on a solid foundation. Children must not be taken too rapidly, and they must be permitted to work through the various skills of a given grade level even though their reading achievement and independent reading may be several grades higher. This careful sequential planning is sometimes called programed learning. Phonetic analysis is particularly adaptable to such methods.

The principle of readiness is just as important to phonics as it is to other aspects of reading. Pupils in the primary grades must hear the difference between various letter sounds and be able to recognize the same sound in different words before they can use phonics in word attack. They must also be able to produce these sounds in their own speech. It is not enough for them merely to hear rhymes and word sounds; they must learn how different sounds feel to their own lips and tongues as they produce them correctly. Their teachers can help them by giving greater emphasis to speaking and listening as a part of phonics instruction as well as a part of general language development.

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Reading experts have pointed out that not all children need the same amount of practice with phonics to acquire skill in reading. Their statement should not, however, be interpreted, for only a very few exceptionally bright youngsters can safely bypass phonics instruction. All need a good foundation in phonics, even those who manage to read with understanding from material several grades above their placement in school.

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Teachers of reading cannot avoid their responsibility for phonics instruction. Incidental teaching is not enough; direct, systematic teaching must be related to reading that makes sense to the pupils. Phonics cannot be used in isolation and should not be taught in isolation; it is one part of the reading program. Without syllabication, along with other aspects of structural analysis, and intelligent use of context, phonics loses much of its usefulness as a tool. It should never become such a dominant part of the reading program that it stifles interest and results in a laborious word-by-word approach.

Heilman, Arthur W. Phonics in Proper Perspective. Columbus, Ohio: Charles E. Merrill, 1964.

A book which delineates the purposes and limitations of phonics instruction, and suggests a number of provisions for teaching auditory-visual discrimination and consonant sounds, vowel sounds, and syllabication.

Arthur W. Heilman is Professor of Education at Pennsylvania State University.

In the conclusion of this book Heilman summarizes the main issues regarding phonics instruction which he discussed more completely in previous sections.

Whether or not phonic analysis should be taught as part of the reading program is not an issue. Children need this important ability in order to become independent readers. However, in recent years, the matter of phonics instruction has become a major educational issue in the teaching of reading. This issue developed in a round-about way, in that critics of American reading instruction have planted the idea that present day methodology is opposed to teaching phonics and that materials and instruction make no provision for teaching phonic analysis skills.

While both of these premises are false, they are the basis for the debate over "phonetic method vs. the sight-word method." Confusion has resulted because critics, laymen, and teachers are, by the very nature of this debate, forced to take a polar position on phonics instruction. As a result, we have tended to lose sight of the purpose of phonics instruction as it relates to

learning to read. The "either/or" discussion has covered up and ignored some important educational implications of phonics instruction.

One of the purposes of this book is to identify and explore a number of such educational issues. The following is a brief summary of the points discussed previously:

1. The purpose of phonics instruction, as it relates to reading, is to provide the child with the skill for pronouncing or approximating the pronunciation, of words not known as sight words.

2. The term, word-analysis skills, embraces all ways in which a child might "solve" a word which he does not recognize.

3. Phonics is but one important part of this total word analysis program. Children solve words by means of unique features ("tt", "ll", "oo", "y"); pictures; structural analysis; context; phonic analysis--as well as utilizing these methods in combination.

4. Children can be taught overreliance on sounding out words. Overreliance on any one of the above approaches is not efficient. The child who can "sound" all words and who does sound out all words is an inefficient reader.

5. Early reading instruction should not provide a "set" for sounding each word.

6. Beginning reading instruction should foster a set that "reading is a meaning-making process." In initial reading instruction, one teaches some words as wholes before teaching sounds of letters in words. Then, as quickly as possible, words should be mastered as sight-recognition vocabulary.

7. When analysis is begun,

- a) words already learned are used as phonic models,
- b) consonants are taught first because their sounds are more consistent than vowel sounds,
- c) words are attacked from left-to-right (more than 80% of words begin with consonants), and
- d) children are taught to use all methods of word analysis (structural, context, phonics).

8. A good phonics program provides for differentiated instruction. The right combination of phonics instruction for "Child A" may be inadequate for "Child B" and excessive for "Child C." For any given child, the right combination of drill on analysis is the minimum he needs to arrive at the pronunciation of words whose meanings he presently knows.

A second objective of this material is to present a brief outline of practices which might be used in teaching phonic analysis. The suggestions were intended to be illustrative rather than prescriptive. Some of the principles outlined include:

1. The basis for all instruction in phonics is the ability to discriminate between speech sounds and the ability to visually discriminate between printed letters.

2. Having the child memorize rules does not assure that he can, or will, apply these in reading situations.

3. All phonic principles necessary for a child to become an independent reader should be taught.

4. It is not necessary to teach phonic generalizations which have very limited application. The few words covered by such generalizations should be taught as sight words.

5. Teachers at various grade levels should be familiar with the entire phonics program because of the variability of children's needs in a given classroom.

Mc Collum, John A. "An Evaluation of the Carden Reading Program," Elementary English, 41 (October, 1964), 600-612.

A description of the characteristics of the Carden reading program in comparison to a modern basal reading program, and an analysis of the effectiveness of the Carden program based on experimentation and expert opinion.

John A. Mc Collum is Assistant Professor of Education at Southern Oregon College, Ashland.

Mc Collum investigated the effectiveness of the Carden method through the use of experimentation, surveys of school districts which had used the Carden method, and a linguistic analysis of the Carden program. The results of this investigation and analysis did not substantiate the claims which have been made for the Carden method.

The Carden program was brought to the attention of the writer during the summer of 1960 when Miss Carden conducted a series of lectures sponsored by a local parents' organization. At that time Miss Carden was quoted as saying, "... a bright child can be taught a thorough working knowledge of phonics and can be reading independently in any material that interests him after four months of hour daily lessons. The slower child is usually on his own at the end of the first grade." It was also stated that schools using the system report, "(1) Never any nonreaders, (2) No retarded readers, (3) Children with I.Q's. as low as 75 are regularly taught to read."

The content of Miss Carden's lectures resulted in much concern in relation to the "unusually" heavy emphasis on phonics to the seeming neglect of other word attack skills; the distortion of letter sounds; the unusual method of phonetic notation; and the apparent lack of comprehension and critical reading skills.

However, despite these apparent limitations it was felt to be desirable to obtain the materials and structure a program to evaluate the Carden system.

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It would seem to this writer that the modern basal program of reading instruction is based upon the belief that man has accumulated a storehouse of knowledge, and that it is important for the welfare of our society that each individual be given the key which will unlock for him that portion which will result in his contributing to the improvement of himself and society generally. In the basal program these basic skills and concepts are set forth in a sequential and orderly program of development from the concrete to the abstract; from the simple to the complex. However, the modern basal reading method is also programmed in a manner which recognized the dignity and worth; and the "uniqueness" of each individual child. It recognizes that reading is not an "end in itself," but only a "means to an end." Consequently, although word recognition

skills are basic to the program, techniques are presented as an integral part of the program to lead children to discover for themselves the richness of our heritage and to read with critical and creative perspective.

In this respect, the basal program recognizes the wide range of differences in nature, and used as a tool in the hands of a skilled and creative teacher, it can serve as a basic instrument for the development of personal as well as academic needs of individual children.

On the other hand, the Carden reading system sets forth, in a planned and sequential manner, a program of word recognition. Critical and creative thinking skills are not apparent to this writer. Story content, including related reading in basal series, is used as a media for developing a phonetic approach to word recognition and an analysis of the mechanical structure of the English language. Comprehension is confined to direct recall of factual information. The manuals at each grade level present a complete listing of teacher remarks and pupil responses with the insistence that these only be used.

Available evidence obtained through this study indicates that the majority of children do not achieve at a higher level of competency through the use of the Carden reading program.

Robinson, Helen M. "Research Comparing Phonic and Combination Methods," Elementary School Journal, 63 (May, 1963), 421-22.

A report on a study which compared a phonic method with a combination method in teaching beginning reading in the Filipino language, a highly phonetic language.

Helen M. Robinson is William Scott Gray Research Professor at the Department of Education of the University of Chicago.

Robinson describes a study which indicates that what might be described as a pure phonic method produced no better results than the combination method usually suggested in basal reading series, even in a language ideally suited to the use of phonic techniques.

Research that compares the efficiency of phonic methods usually advocated in basal readers has been reported many times with varying results. Frequently, criticisms of the studies include the bias of the researcher who is eager to show the superiority of one technique or another.

The Twelfth Yearbook of the National Reading Conference compares phonic method with combination method in teaching beginning reading in a report by Emperatriz S. Tensuan, supervisor of elementary education of the Pasay city public schools in the Philippines, and Frederick B. Davis, professor of education at Hunter College. Neither investigator has been associated with previous investigations of this type.

The study is concerned with teaching reading in Filipino, a language in which there is close correspondence between letters and diphthongs and their sounds. Such a language would appear to be ideally suited to the use of a phonetic method. Furthermore, since the teachers had been using a phonetic method, they predicted that superior results would be achieved by continuing it.

The study continued two years, and at the end of second grade 658 of the original group using the phonetic method (known as Cartilla) were compared with 489 in classes taught by combination methods.

The teachers in the ten schools were rated on four measures. They were provided with materials and descriptions of procedures in order to stimulate uniformity of practice. The amount of time given to instruction was held constant. Mental age, chronological age, and school attendance were recorded so that differences in any of these factors could be taken into account in the statistical analysis of differences in achievement of the two groups. The Philippine Achievement Tests, given in Filipino, included measures of social studies, arithmetic problems, reading comprehension and spelling. The tests were administered at the end of Grade 2. Analysis of covariance showed no statistical differences in the achievement of the two groups except in arithmetic. The authors point out that if the phonic method is not superior to the combination method in a language ideally suited to the phonetic technique, then the implication is that it is not likely to be as successful in a less phonetic language such as English.

The authors note that children taught by the phonetic method learn to pronounce words very quickly, a feat that impresses parents and laymen. But the authors also note that pronunciation is not always evidence of comprehension.

Russell, David H. and Henry R. Fea. "Research on Teaching Reading," in Handbook of Research on Teaching, N. L. Gage, editor. Chicago: Rand McNally, 1963.

A chapter which summarizes the historical background of reading instruction, teaching identification and recognition, teaching meaning, comprehension according to subject-matter fields, classroom organization, and other aspects of reading instruction.

David H. Russell (deceased) was Professor of Education, University of California, and Henry R. Fea is Professor of Education, University of Washington.

In the section of this chapter on phonics methods, Russell and Fea review selected research studies which, when viewed together, indicate the diversity of methods which have been proposed for the development of phonic skills. Some useful generalizations from this research, which were developed by Russell, are listed at the end of the section.

In phonics methods, the sounds of single letters or groups of letters are auditory clues to word identification-recognition. Probably more has been written on phonics in the past five years than on any other aspect of the teaching of reading. The resulting volume of literature is enormous, selection is difficult, condensation is imperative, and organization arbitrary. . . .

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The many "phonics versus whole-word" experiments in teaching have contained uncontrolled variables. Experiments designed to determine the relative effectiveness of different amounts of phonics, or the value of phonics at different maturational levels, have been more successful. Gates and Russell (1938) investigated word analysis factors in beginning readers in New York. They concluded that a program containing little or no phonetic analysis was not as good as one which contained moderate amounts of informal word analysis. On the other hand, a program containing moderate amounts of informal word analysis was better than one containing substantial amounts of drill-type

phonics. Tate, Herbert, and Zeman (1940) used methods of instruction which differed slightly from those of Gates and Russell, but their results were substantially the same. Agnew (1939), working with primary school children in North Carolina, obtained inconclusive results: Large amounts of phonic training seemed detrimental in Grades 1 and 2, but beneficial in Grades 1 and 3. Agnew performed a later experiment with a similar group and concluded that large amounts of phonics were beneficial. Tiffin and Mc Kinnis (1940) correlated the reading ability and phonetic ability of children in Grades 5-8 and concluded that phonic knowledge is of value in reading (the correlation coefficients were positive, varying from .5 to .7) and thus, that moderate amounts of phonics were beneficial. . . .

When should phonics be taught? Readiness for phonics has been the subject of much opinion and some research. Linehan (1958), Nicholson (1958), and Durrell and Palos (1956) favored early instruction in letter sounds and names, suggesting that it would prevent most reading difficulties. H. M. Robinson (1958) questioned such findings. Dolch and Bloomster (1937), in a study of the relationship of phonics and mental ability, concluded that higher mental ability was required to apply phonic principles than to memorize sight words. Children with a mental age below seven failed in tests of phonic ability. From a study of 220 experienced teachers in 33 different states, D. H. Russell (1955) found that many teachers believed that phonics should be emphasized in Grades 2 and 3--24 per cent favored emphasis in Grades 1 and 2, and 36 per cent favored emphasis in Grades 2 and 3. Morris (1958) concluded, in a review of research, that for normal children, phonics should be deferred to the second or third grade, and that for children of high intelligence and good cultural background, phonics in an earlier grade seemed appropriate, although research here is meager.

Where should phonics be taught? Few investigators would disagree that: (1) phonics should be part of the thought-getting process of reading; and (2) phonics should be but one of the word-recognition techniques known and used by the pupil. Research by Gates and Russell (1938) and Tate, Herbert, and Zeman (1940), previously referred to, indicates that isolated drill is inferior to phonics, which is intrinsic to the reading process. . . .

What phonics should be taught? Research to discover what phonic elements are of most value to pupils is rare. Oaks (1952) listed vowels and vowel combinations in primary basal readers and indicated the levels at which they began to appear frequently in the text. Further, she listed eight phonetic rules for primary-grade readers. Opinion and experience are valuable guides. It is safe to assume that elements such as the sound of a in "cat" will be of great value, and that the sound of ough in "dough" represents the point of extremely diminished returns. W. S. Gray (1948) noted phonetic elements to be taught and established a sequence for teaching them. A. J. Harris (1956, p. 351) compiled a refined list of elements to be taught.

How should phonics be taught? Studies of different methods of teaching phonics are also rare and have frequently been conducted by enthusiastic proponents of one of the methods. Fundamental differences between the methods have seldom been explored; rather, comparisons of mere superficialities have usually been undertaken. Although the categories are somewhat arbitrary, it appears to the present writers that phonic methods might be classified as follows.

(1) The traditional method. This method uses an individual-letter sound and then a blend as an approach to word synthesis. The approach is deductive; that is, the teacher presents the new phonic element, asks the child to pronounce it, uses it in a nonsense blend or three-letter word, and then transfers it to words. Hay and Wingo (1948) adapted this approach, emphasizing that attack in pronunciation must always be through the initial blend. An initial blend is a "combination of one or more consonants with a vowel at the beginning of a word or syllable, such as c in catch, or thi in thick, that, when pronounced together and added to the remaining letters of the word or syllable, enable the pupil to determine the pronunciation". . . .

(2) The blend method. Here, the child is taught to recognize blends rather than individual-letter sounds. Blends are more difficult to recognize than individual letters, but the resultant sounds more closely approximate the sound of the word. Thus, Cordts (1953) suggested that the word "sand" should be sounded "sa"... "nd" rather than "s - a - n - d."

(3) The multiple-sense method. This method emphasizes speech, listening, kinesthetics, or a combination of these. Durrell, Sullivan, and Murphy (1945) began with the sound elements of the child's spoken vocabulary, gradually transferring them to the visual form. An even more ambitious approach was used by Mc Crory and Watts (1947), who held that the perceptual skills of speech, vision, hearing, and feeling are interrelated in word-recognition activities. The "phonic-word" method of Daniels and Diack (1959) is the most recent. Workbooks were written to conform to graded phonic complexity, and a constant relationship was established between visual and sound symbol. Daniels and Diack explained that other methods led to "part-seeing" and "whole-saying" which resulted in many errors. Therefore, their program taught the child to see and obtain meaning from each letter of every word and thus to recognize the "differentiated whole" from the "undifferentiated whole."

(4) Chart method. Although it may be inappropriate, the term chart method refers to those phonic systems which begin with classifications into syllables, series of prefixes, phonic charts, phonic designs, etc. One classification of phonetics is Dolch's (1945). He used five categories: (1) single-letter sound combinations, (2) two-letter sound combinations, (3) helpful-letter sound combinations, i.e., combinations which are not essential but do assist the reader--ng being an example, (4) rules, and (5) syllables. There are more elaborate plans in which phonograph recordings, charts, colored sticks of wood with phonic elements printed on them, etc., are employed.

(5) Basal-reader method. Under this method, the phonetic element is always introduced in the context of a reading lesson, and instruction is always inductive. In manuals which accompany basal readers, editors inform teachers when pupils have met at least three words containing a phonetic element and when the fourth word containing such an element is to be introduced. The teacher expects pupils to know the three sight words, and expects to assist the pupils in generalizing from the presence of the phonetic element in known sight words. An example of such an approach is that of Mc Cullough (1955).

From the research on phonics, some useful generalizations can be made. One list which may prove of value to research workers evaluating methods is that of D. H. Russell (1961):

- (1) Phonetic analysis is only one of several good methods of word recognition. .
- (2) A program of phonetic analysis must be intrinsic (to the total program of instruction). . . .

- (3) Readiness for phonetic analysis must be established as for other reading activities. . . .
- (4) Since phonics is a series of generalizations about words, the teacher will teach inductively. . . .
- (5) Teachers must plan carefully when they will introduce word-analysis techniques into a lesson. . . .
- (6) Lessons should be designed so that children have a chance to practice and synthesize various methods of recognizing new words. . . .
- (7) Teachers should have a systematic approach in teaching the use of phonetic analysis (D.H. Russell, 1961, pp..309-312).

Spache, George D. Toward Better Reading. Champaign, Illinois: Garrard Publishing Company, 1963. 470 pp. (Chapter 13, "Word Analysis and Phonics--Aids or Cures?")

A book which summarizes most of the important aspects of reading research.

George D. Spache is Professor of Education and Head of the Reading Laboratory and Clinic, University of Florida.

Spache makes an excellent analysis of research and suggested practices regarding teaching phonic skills, portions of which are as follows:

There is little unanimity of opinion regarding proper methods of teaching phonics. The manuals for home instruction . . . disagree almost completely in their methods, and even leading reading authorities disagree in many details. For these reasons, there is really no basic phonic system about which generalizations can be made. Perhaps descriptions of some of the methods used in the popular books addressed to parents and a comparison with the suggestions of recognized reading experts may prove this point. It may be confusing to the reader to be introduced to this wide variety of beliefs and practices. But it certainly will alert him to the need for more critical reading of manuals claiming to teach phonics and of research which makes statements about the effectiveness of phonics teaching without specifying its exact nature.

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Several of the authors of these books, such as the Spaldings . . . , E. S. Metcalf . . . and Dr. Flesch . . . , warn the user that unless he follows their systems step by step the child will not learn to read successfully. This thought can be even more threatening if we happen to compare these books, for the sequence of steps and methods differ widely. These authors make it apparent that learning phonics is completely a memorization process based upon repetitive drill. They provide page after page of isolated words and phonic elements which the parent or teacher is to drill vertically, horizontally and diagonally until these facts are embedded in the pupils' minds. Apparently it never occurs to these authors that the purpose of phonics is to speed word recognition, to increase the child's sight vocabulary and to lead him to read for meaning.

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The contents of the phonics courses outlined in . . . popular textbooks differ markedly. Almost the only point of agreement is the inclusion of the teaching of the letters of the alphabet. But even in this there is a difference of opinion. Some of these experts teach pupils the names of the letters and their commonest sounds, while others ignore the names and expect pupils to identify each letter only by its commonest sounds. Some teach all the consonants, others teach only seventeen of them. Some teach the long and short sounds of the vowels, others teach one but not the other group of vowel sounds. The Hay-Wingo text omits the long sounds of the vowels, possibly because of their simplicity . . . , while the Spaldings omit the short vowel sounds, probably because of their difficulty. . . . Reed and Klopp, on the other hand, teach the short vowel sounds first because, in their opinion, they are simple and consistent. . . . The Phonetic Keys to Reading teaches the long vowel sounds first . . . , while Miss Cox teaches seventeen consonant sounds and ignores all vowel sounds and other phonic elements Practices in the teaching of other phonic elements such as blends, vowel or consonant digraphs, and vowel diphthongs vary almost as widely in these books. Despite the fact that a number of texts teach as many as several hundred letter combinations, most of these authors see no need to aid pupils in evolving or understanding phonics principles: six of the texts offer no basic rules or generalizations for the pupil.

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Formal, synthetic phonics, as found, for example, in Phonetic Keys to Reading, does tend to produce more familiarity with the alphabet and more accurate spelling, according to several research comparisons At the same time, this method repeatedly has been found to produce pupils who are inferior in word recognition, speed and comprehension The analytic method or the Gates Intrinsic Method, as it has been called, involves using whole words in context, analyzing their elements and comparing them with other known words in a setting that promotes simultaneous phonic and contextual analysis. This approach integrates phonics into the act of word recognition while reading, and thereby produces better reading It also is superior to beginning reading methods that omit phonics Most present-day reading authorities strongly recommend the analytic method and have convinced classroom teachers of its desirability, as Russell's survey of teacher practices shows Only 15 per cent of teachers today still cling to phonics drill isolated from the act of reading.

The obvious advantages of the analytic method are numerous. It integrates the components of phonics, word form and context into the act of word recognition for which the fundamental objective is word meaning. It deals realistically with words and their constituent parts as the child normally meets these in the act of reading. Thus the child learns only one process, using phonics to aid word recognition and evoke word meaning, in contrast to the synthetic approach which demands first the memorization of a number of letter sounds, and secondly, the transfer and application of this knowledge to the act of word recognition. Finally, the analytic method avoids the almost impossible task of blending separate letter sounds into a facsimile of a real word.

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Most reading authorities agree that phonics is fundamentally the learning of single letter sounds. Therefore, most phonics syllabi include the sounds of the consonants and the short and long sounds of the vowels. Since the correct pronunciation of a single consonant is almost impossible without distortion,

e.g., buh for b, and because the sound of the consonant is dependent upon and blended with the following vowel, some authorities stress a consonant-vowel combination The initial consonant is pointed out in the word, but its sound is joined with that of the vowel in sounding or pronouncing the word. The short vowels are generally considered simpler and less variable than the long vowels. Therefore, the former are usually taught initially with the initial consonants. Two other facts support this sequence. First, there is the frequency of monosyllables containing the short vowel sound in primary reading materials. Second, studies of word perception have shown the overwhelming importance of the initial portion of the word in recognition. Beginnings of words are most frequently observed and used as cues to recognition. While endings are next in importance, and medial sounds are the least often observed.

Following the initial consonant-vowel combinations, consonants in the final position and common word endings are often taught. Again, the sound of the final consonant is identified not as a single letter sound but as it occurs in the words of the reading vocabulary. Then the more difficult consonants, x, q, z, and y are taught and the variant sounds of c, g, and s. Thus a basic twenty-four sounds are presented for the twenty-one consonants. Consonant blends or digraphs and speech blends usually follow, since these are largely combinations of single consonant sounds with the sounds of l, r, p, t, as in cl, gr, sp, st, etc. These blends are not taught in isolation but as the beginning sounds of whole words.

The sounds of the long vowels are usually taught, and the principle of the silent e, as in can-cane, bit-bite, is discovered inductively. Most authorities favor the learning of this principle despite the fact that an early study by Sartorius found more exceptions than examples in a basic vocabulary. . . .

Phonograms or families, as Chall and Roswell term them . . . , are usually three or four letter combinations, such as ake and ight, that ordinarily form a syllabic or pronunciation unit. Spache has shown that many phonograms of three and four letters are more consistent phonetically and less variable in their pronunciation than two letter combinations such as in, on, ot, an Moreover, these elements are frequent in basic vocabularies and form striking perception units. But not all reading authorities recommend their teaching. Dolch particularly prefers letter phonics to phonograms, although he does not quite explain just how a child would attempt to analyze such elements as ing in thing or ight in right. . . . The present writer, as well as Hildreth, and Chall and Roswell believe that these larger units are extremely useful and would include them in the phonics syllabus. As primary reading grows more difficult and poly-syllables appear in greater number, the use of larger recognition units encompassing entire syllables is desirable. Because syllabication is the natural method of word attack for children of the intermediate grades, phonic analysis should progress toward this approach. In fact, the child has just about finished learning the various letter and letter combination sounds when he begins to discontinue their use in favor of analysis by syllables. For these reasons, three and four letter phonograms or syllables should be introduced during the latter part of the primary grades.

Vowel combinations including double vowels, vowel diphthongs, vowel digraphs and the vowels in combination with r introduce some of the more difficult and variable phonic elements. Hence most authorities delay the teaching of these until later in the primary period. Some writers favor the teaching of several phonic rules regarding vowel combinations, such as that which claims that the second of two vowels in a one-syllable word is usually silent, and the first vowel is long. Unfortunately, many vowel diphthongs and digraphs such as oi,

ou, au, ea (head), do not follow this principle. Therefore some word authorities disparage its usefulness.

Phonics involves two techniques which the primary child must be helped to achieve, even though most popular phonics texts ignore them. The pupil must be assisted to "read through" a word rapidly while sub-vocally blending the sounds for the natural pronunciation of the word. Eventually, he will learn to think the sounds without voicing them. As he grows in skill, he will also use partial sounding, as of initial portions or endings, plus contextual clues for quick recognition. Besides help in blending, the primary pupil needs assistance in perfecting what Hildreth calls the "substitution technique." In this he must 1) visualize a known word that resembles the new word except for an initial or final element; 2) think of the sound of the new element; and 3) blend this sound with the rest of the word. Thus he reasons by analogy with a known word and mentally adds a new element to the known portion of the word, as in click-chick.

E. Linguistic Approaches

Considerable interest has been shown recently in the application of knowledge in linguistics to the teaching of reading. Some linguistic approaches to teaching reading have been proposed and new reading materials include some which claim to be linguistically based. An analysis of the proposals which have been made and of some of the commercial materials which bear the "linguistic" label indicates that there is considerable disagreement as to what constitutes a linguistic approach. The approach suggested by the eminent linguist Leonard Bloomfield appears to have numerous shortcomings when evaluated in the light of current knowledge regarding the learning behavior of children, and on the basis of knowledge in the field of linguistics, itself. While there have been difficulties in communication among linguists and specialists in reading instruction the current trend is toward a cooperative effort which will combine knowledge of the linguistic structure of our language with knowledge of effective pedagogy in reading in order to develop more effective techniques and materials.

The selected references in this section define the field of linguistics, evaluate current linguistic proposals and materials, and consider the contribution the field of linguistics may make in improving the teaching of reading.

Bateman, Barbara and Janis Wetherell. "A Critique of Bloomfield's Linguistic Approach to the Teaching of Reading," Teacher, 18(November, 1964) 98-104.

An article which describes the linguistic approach devised by Leonard Bloomfield, traces its initial use and later modified use in individual and classroom situations; compares other linguistic approaches to Bloomfield's approach; and raises questions regarding the effectiveness of the Bloomfield System.

Barbara Bateman is Research Assistant Professor at the Institute for Research on Exceptional Children, University of Illinois; Janis Wetherell is a James Scholar, majoring in psychology, at the University of Illinois.

Bateman and Wetherell summarize the content of this article in the following statement:

Leonard Bloomfield designed a linguistic approach to teaching reading based on the facts that English writing is alphabetic and that reading is the process of responding vocally to symbols and patterns of symbols. He classified

words according to whether they followed the alphabetic principle or not and then insisted that only the regular words be included in the vocabulary in beginning reading. In order that the System could be made available to reading teachers the book Let's Read: A Linguistic Approach was published in 1961. Investigation of the literature reveals that interest in the linguistic approach to teaching reading is high, but that most applications have used modifications of the Bloomfield System.

Some of the objections raised to the Bloomfield System include: (1) its dependence on an "automatic" rather than reasoned association between letters and sounds; (2) failure to take into account the normal developmental sequence of mass action, individualism, and integration which forms the basis for planning the stages of reading instruction; (3) the exclusive use of the name rather than the sound of the letters; (4) too rigid exclusion of all irregularly spelled words during early instruction; (5) inadequate attention to instructional problems should the children have difficulty.

It seems then that the approach perhaps cannot be used in its entirety, but that the classification of the words can be accepted as a linguistic contribution and included at the proper stage in the reading process. The application and planning of the methodology are the tasks of the educator.

Betts, Emmett Albert. "Reading: Linguistics," Education, 83 (May, 1963), 515-26

A description of linguistics, the characteristics of language, referential and linguistic meaning, parts of speech, function words, intonation, factors emphasized by linguists, and the relationship of linguistics to reading instruction.

Emmett Albert Betts is Research Professor, University of Miami, Coral Gables, Florida.

Betts, in the following sections from this article, defines the field of linguistics, and discusses the relationship which should exist between linguistics and reading instruction.

Linguistics. Linguistics--the scientific study of language--deals with two basic units, or elements, the the expression system:

1. The phoneme (or group of related speech sounds), or the smallest unit which differentiates the meaning of words: e.g., the phonemes b and p differentiate between bit and pit. Phonemes "are distinguishers only" and without meaning themselves. (This facet of descriptive linguistics is call phonology, the study of phonemes and sequences of phonemes.)

2. The morpheme, or smallest unit of expression that has meaning; e.g., boy is a morpheme, but boys embraces two morphemes, boy and s. (This facet of descriptive linguistics, including word groups, is called grammar, the study of morphemes and their combinations.

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Linguistics and Reading Instruction. Teachers of reading do need basic understandings of phonemics, grammar, etc. However, teachers of reading need not be linguists; instead, they need to use the findings and conclusions of these dedicated scholars. On the other hand, teachers and authors of professional and pupil text books do need some depth of scholarship in linguistics so they are prepared to collaborate with linguists for the improvement of reading instruction.

For depth and breadth of scholarship in the highly specialized field of linguistics, the educator solicits the cooperation of researchers in that field. In doing so, the educator observes two cautions:

First, linguists tend to have specialized research interests in phonemics (e.g., Charles K. Thomas), in grammar (e.g., Noam Chomsky), and other facets of linguistics.

Second, linguists--not qualifying as either educators or psychologists--may make proposals that are neither pedagogically nor psychologically acceptable. Hence, there is a need for collaboration between educators and linguists.

An inter-disciplinary approach to reading instruction has been "in the making" for a long time. Phonemicists have provided significant concepts for structuring a phonics program. Experimental psychologists have provided equally important concepts of perception on which to base instruction in phonics.

But neither of these disciplines offers the answer to the word learning needs of pupils. Furthermore, the conclusions of scholars in different disciplines are being sorted out, evaluated, and tried out in classroom situations by those responsible for instruction; namely, educators.

Likewise, students of morphology and syntax have contributed significantly to the thinking facet of reading instruction. But so have the semanticists. And so have researchers on the psychology of thinking. However, conclusions of these and other scholars are being identified, evaluated, and tried out in classrooms.

No one can justify the status quo of reading instruction or any other curriculum area. Some phonic programs in use today are significant improvements in over those of yesteryear. The same is true regarding motivation (including interest) and thinking. Moreover, a great deal of progress has been made in the differentiation of instruction.

But effective reading instruction is based on far more scholarship than that offered by linguistics. Methods and materials would be distorted, indeed, if they were based on the limited, though important, contributions of linguists.

Evidence of this point is ample, for there have been linguists' recommendations and materials--including outright tirades--bordering on the ridiculous. However, other linguists working with psychologists and educators are making significant contributions to the improvement of reading instruction.

What can linguists contribute to reading instruction? There are several answers, including:

1. A phonemic basis of word perception and recognition
2. An understanding of incorrect spellings which reflect correct pronunciations, as use to for used to--which offers a rational basis for remediation
3. An understanding of incorrect pronunciations which reflect interpretation of spellings, as saying Wednesday in three syllables or pronouncing the t in often but not in soften
4. A phonemic basis for the consistent use of pronunciation symbols in dictionary respellings.
5. A structural, or differential, dimension to "meaning"
6. An intonational, especially pitch and juncture, basis for understanding the use of punctuation and the structure of sentences

7. A grammatical basis for teaching comprehension of higher level structures, especially the sentence.

Linguistics: Fad or Contribution? Linguistics can become a new fad on reading instruction. Or, this relatively new approach to the scientific study of language can contribute to the restructuring of both materials and methods and, therefore, contribute to pupil achievement.

Linguistics can easily become a fad when too many educators fail to come to close grips with findings and with the different interpretations of them. For example, there are educators who limit their view of linguistics to phoneme-grapheme relationships--to one facet of word perception and recognition. But linguistics also embraces higher structural levels: morphemes, morpheme classes and function words, syntax, etc.

Faddists lay claim to a knowledge of linguistics when they make superficial mention of phonemes and their allophones, morphs and their allomorphs, classes of morphemes (parts of speech), kernel sentences and transforms, intonation contours, phrase structure grammar, and other terms. But scholars in education master the concepts--often divergent--and use them as a basis for improving reading instruction.

Faddists rush into linguistics as a panacea for all reading ills as they have into the sight-word "method," a phonic method, semantics, group and individualized reading, and so on. But linguistics cannot be equated with reading instruction. Instead, linguistics is a body of knowledge that provides a systematic insight in regard to (1) word perception and recognition and (2) the ability to think in a language.

In fact, phonemics has already provided a scientific basis for a phonics program and for respelling (pronunciations) in at least one set of dictionaries.

Durkin, Dolores. "Linguistics and the Teaching of Reading," Reading Teacher, 16 (March, 1963), 342-46.

An article which defines the field of linguistics, reviews some of the proposals by linguists, and suggests ways in which linguists and reading specialists might work together to improve reading instruction.

Dolores Durkin is Associate Professor of Education at Teachers College, Columbia University.

In the following sections from this article Durkin defines the major foci of linguistics, discusses the entry of linguistics into the field of reading instruction, discusses some of the pedagogical proposals of linguists, and summarizes her suggestion that linguists and educators work together:

Themes and titles of recent articles . . . , and even of some not so recent ones . . . , continue to call attention to a linguistic approach to the teaching of reading. Now, too, a few reading texts "based on a linguistics approach" are beginning to trickle from the presses. Before the reading field gets swamped by still another panacea, it is imperative that ample time and careful thought be given to the very basic question, "What, in fact, is a linguistic approach?"

Any effort to deal with such a question immediately suggests a still prior one; namely, "What is linguistics itself?" The quickest and the most general answer is to say that the field of linguistics is concerned with a scientific study of language. One major focus of this study is the structural features of the sound systems of language. Here, there is interest in the physical features of speech (phonetics). There would also be concern for the identification and study of the sounds of language (phonemics).

The second major focus of linguistics is the structure of language on a grammatical level. Here, attention is given to word order patterns, intonation, and inflection.

At times, both of these major foci also include a study of the evolution of particular languages (historical linguistics), and of comparisons among them (comparative linguistics).

. . . Early concern shown by a linguist for the teaching of reading can be found in two articles by Professor Leonard Bloomfield, both published in 1942 in Elementary English. . . . Subsequently, but especially throughout the fifties and into the sixties, the number of similar kinds of articles, each generally offering a proposal for teaching reading, has grown steadily. At the same time the interest of professional educators in these proposals has grown. Now, in fact, the interest can be characterized as being wide and enthusiastic--but, generally speaking, not as probing and constructively critical as it might be.

What factors have encouraged this kind of reaction to the pedagogical proposals of linguists? Many factors, of course, but two seem particularly influential.

The first factor is the ever present one of too easy acceptance of cure-alls when the thing to be "cured" or improved is as basically important as reading ability. The second factor is more modern for it is rooted in the temper of the times in which we now live. This is a temper that continues to beget not only great respect for specialists but, sometimes, even a naive kind of homage toward them. And, when homage rather than critical respect predominates, two tendencies result. One is the tendency for pseudospecialists to talk and to write as if they were specialists. To a small extent this has happened in current attempts to bring together linguistics and the teaching of reading.

A second and equally undesirable tendency fostered in this climate of unquestioning adulation is for specialists to speak "authoritatively" about a field that is actually outside their own area of competence. And it is toward this tendency that many linguists have drifted as they now make proposals for school programs in reading. Such a tendency in any area of study is unfortunate, mostly because it is unfruitful. It too often leads to responses of rejection in which the authoritative as well as the nonauthoritative proposals are lost.

To avoid, therefore, the loss of help for reading that might come from the field of linguistics, it is essential to distinguish between valid proposals that are the direct outgrowth of this specialization, and those which are only the conjectures of individual linguists. Once the distinction is made, the first set of proposals will merit serious attention from reading specialists. The second set might serve to suggest new directions for research--or, perhaps, old paths that must be trudged again, this time more carefully.

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What are some of these proposals? . . . the most frequent proposals of linguists are noted below, each followed by a listing of some of the questions that need to be asked about them.

1. The vocabulary of beginning texts in reading ought to include only words that show a regular correspondence between their spelling and their sound. (What, in fact, is a "regularly spelled" word? Are linguists ready to provide us with groupings of words that show gradual change from the most regular to the most highly irregular? Does the proposal amount to an oversimplification of our spelling system? Will this kind of introduction to reading make children less flexible and, therefore, less ready to cope with the many words in our language that show an almost capricious kind of spelling?)

2. In initial reading instruction, concentration should be on single, regularly spelled words, and even on nonsense syllables. (Does not the calling off of lists of syllables, inevitably become monotonous and also meaningless? Does the proposal encourage a return to the rote drill that prevailed in the earlier years of this century? Will it lead to overconcentration on individual words and insufficient attention to meanings of groups of words, sentences, and paragraphs?)

3. The style of textbook language ought to be like the style of children's spoken language. (What, precisely, is meant by "style of language"? Might it not be that "style" varies greatly among children? For instance, wouldn't different family backgrounds make for major differences in speech styles? If certain styles were clearly identified and if, in turn, they became a part of reading texts, would this necessarily simplify the task of teaching reading? Would it, for example, improve reading comprehension? Would the material excite new interest in learning to read?)

4. Pictures should be omitted from reading texts. Helpful cues for word identification should come from letter-sounds, not pictures. (To what extent, and in what kinds of ways, do children use pictures as a source of help with word identification? Would the omission of pictures make for less interesting texts? Would the omission of pictures make a text unlike the materials children read outside the classroom? And, ideally, shouldn't the situation in which a skill is learned and practiced be typical of the one in which the skill is to function?)

The few proposals noted here, combined with a study of other proposals made by still other linguists, suggest two conclusions. First, there seems to be no such entity as "a linguistic approach to the teaching of reading" and, secondly, many of the individual proposals of linguists pose important questions which are still without answer.

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The hope expressed in this article is that the specialist in linguistics will be willing to share, with both preciseness and simplicity, findings that are the fruit of his special areas of study. It is also hoped that educators will study these findings, and then test those proposals that seem to have special relevance for the teaching of reading. Only with this combination of specialists, each working in his own area of competence, will the field of linguistics be given optimum opportunity to make genuinely productive contributions to the field of reading.

Betts, Emmett A. "Word Perception Skills for Tomorrow," in Education, 85:9 (May, 1965), 523-28.

An article which discusses the many ways in which the development of word perception skills through the help of linguists and psychologists is superseding the ineffective letter phonics of other years.

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Betts, in the following statements from this article, discusses the contributions of linguists and psychologists which affect teaching word perception skills. The contribution of the linguist to the phonics program and emphasis on the perceptual setting by the psychologist has resulted in sharp contrasts between old and new methods of teaching word perception skills. Betts points up these contrastive features in terms of methods practiced Yesterday vs. Tomorrow.

Yesterday: Teaching phonics was the method of teaching reading.

Tomorrow : Teaching the automatic use of word-perception skills is one significant facet of reading instruction, the other significant facets being motivation and comprehension.

Yesterday: Independence in the use of phonic skills was equated with reading achievement which often produced word calling, word-by-word reading and low comprehension.

Tomorrow : Reading achievement is measured in terms of (1) maturity in motivations (including interests) for reading, (2) independence and versatility in the automatic use of word perception skills, and (3) abilities required for adjusting rate (skimming, rapid reading, study-type reading) and depth of comprehension (literal, critical and creative reading) to serve specific purposes.

Yesterday: Teaching the names of letters and phonic skills was preparation for reading.

Tomorrow : Word perception skills are taught as they are needed in reading activities, emphasizing in beginning reading consistent spellings (e.g., at-sat, eat-heat, atc-mate) with some control over inconsistent spellings (e.g., done, some, one). This policy calls for teaching of word perception skills in beginning reading.

Yesterday: Teach every member of a class the same phonic skill.

Tomorrow : Phonic skills are taught when needed at the pupil's independent reading level.

Yesterday: Phonics instruction often was based on the assumption that pupils were to be taught the sounds of speech.

Tomorrow : The assumption is made that since children can listen and speak they know how to use speech sounds but they need to learn the alphabetic principal--the relationship between speech sounds and the alphabet used to represent them.

Yesterday: Teaching of phonic skills began with the written word.

Tomorrow : Teaching word perception skills begins with the spoken word.

An article which discusses the contributions of linguistics which can be made to the teaching of reading, and cautions against accepting any type of reading material with the label "linguistic" attached to it.

Kenneth S. Goodman is Assistant Professor of Elementary Education at Wayne State University.

In the following sections from this article Goodman discusses the role of linguists and educationists with regard to the teaching of reading; the distinction between phonemics, phonetics, and phonics; and suggests several contributions which linguistics can make to education:

Linguists as well as educationists are showing grave signs of missing the essential significance that linguistics has for the teaching of reading. Reading materials, reading curriculum theory, and reading teaching have suffered from a lack of accurate knowledge of the language. This lack is not the fault of the workers in these fields. The lack is not confirmation of what the linguist suspects is poor scholarship in the field of education. Accurate, scientifically based knowledge about the English language simply has not been available. Linguists can provide this knowledge. Reading is language, and the teaching of reading must be based on the best available knowledge of language.

Educators need not come to the linguists hat in hand, but neither can educators justify ignoring the knowledge of language that the linguists are so rapidly producing. The knowledge that has been amassed in the field of reading is not bad knowledge. Psychological, sociological, physiological, and pedagogical generalizations about reading are not inaccurate. But old knowledge must be accommodated to new. And it is primarily the educator who must accomplish this assimilation of linguistic knowledge to the end of producing better teaching of reading.

The linguist is carrying on his proper function when he advances linguistic generalizations that he believes apply to the teaching of reading. He is also performing a fitting and useful function when he criticizes the teaching of reading from his linguistic vantage point. But he is not on firm ground when he produces reading programs that are based solely on linguistic criteria.

Educators who are self-conscious about their lack of linguistic knowledge would do well to consider linguistics as they have come to view psychology. Psychology has furnished many principles that are incorporated in reading programs. But a reading program cannot be built on a single psychological principle. Nor can we guarantee that a reading program that is psychologically valid will be a good reading program. Further, there are many schools of psychology as, indeed, there are of linguistics. Completely contrasting programs can have psychological or linguistic validity.

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The concept of the phoneme is one important contribution that linguists have made to the understanding of language and how it communicates thoughts. Almost any variation of sound that a human being is able to produce can be significant in language. The number of these variations is almost infinite.

But in any given language only a relatively few variations really do make a difference. These units of sound that make a difference are phonemes. . . .

The way to differentiate ramp and lamp in English is by the initial phonemes. But in certain oriental languages these initial sounds are not separate phonemes. The mature native speaker of Japanese has trouble producing these sounds because he has great difficulty hearing the difference between them in speech. In his native language the difference has no significance.

A branch of linguistics called phonemics has developed. It is the most highly developed branch and the one in which there is the most agreement among linguists. Two other major branches are morphemics and syntax. If phonemes are the atoms of language, then morphemes are the molecules. A morpheme is the smallest unit of language that can bear meaning. It may be a word or a combining form (as ed added to a base morpheme to signal past tense). Syntax is the study of the structures in which morphemes fit together to produce language.

It is not surprising that linguists' first attempts at criticizing the teaching of reading were aimed at phonics and phonetics. Indeed, linguists found that these terms were used interchangeably and that the knowledge which supported "phonics" programs was highly unscientific and often without basis. The linguists reacted as the early scientific astronomers must have reacted to astrology. The linguists fell into the trap of concluding that phonics programs did not work because they were unscientific; that is, they were not phonemic programs.

Bloomfield . . . , and others who followed, advanced programs that were based on the same essential principle as phonics programs. According to this principle the child is introduced systematically to the written symbols that represent specific phonemes. In Bloomfield's approach learning is simplified because each phoneme is always represented by the same letter or digraph.

Some reading series that are now being rushed on the market are based on this essential principle, except that sound-symbol representations are always introduced in words. Fries's "linguistically sound approach" is another slight variant. He stresses contrastive patterns of letters in words that function in consistent ways. Thus, he would teach children to contrast groups of words such as man, Dan, ban with mane, Dane, bane, and mean, dean, bean.

These programs, which would more properly be labeled phonemic rather than linguistic, have been viewed by some educators as "just another kind of phonics." In a sense that is exactly what they are. They are based on phonemic insights -- the best available knowledge of the sounds of the language -- but they are not complete reading programs from either an educator's or a linguist's view.

Educators should be concerned, for example, that all these programs present groups of very similar words. Psychologists have long known that it is much harder for children to learn to differentiate things that are very similar than it is to learn to differentiate things that are quite different. Indeed, this is one basis on which intelligence tests are constructed.

Linguists should object to the isolation of words or parts of words from "living" language. Indeed, Fries instructs teachers never to say or have the child say anything in the program that is less than a word. But he then tells the teacher to pronounce each word "in normal talking fashion."

His University of Michigan colleague Pike could hardly find this directive acceptable. . . . Words pronounced out of language context cannot be pronounced in "normal talking fashion" because the speaker has no way of knowing what intonation (stress and pitch) to use.

One danger of phonemic reading programs is that their scientific base will give them great respectability and they will gain wide use before they have been sufficiently tried. There are two other dangers. One is that fuller application of linguistics to reading will be delayed. The other is that educators will reject linguistics while rejecting phonemic reading programs.

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If we assume that linguistics has a great deal to offer education but that educators must make the application, it is important to consider carefully how linguistic knowledge can be applied in education. The following contributions deserve consideration:

1. Linguistics can provide education with an accurate description of the language.
2. Linguistics can provide techniques for language and reading research. Availability of new tools and concepts will necessitate the careful review of past research in reading. Much past research could be redone. For example, excellent research in eye movements in reading had a predominantly physiological base. But what do we know about the influence of syntactical structure on eye movements?
3. Linguistics can provide new criteria for judging readability of reading material.
4. Linguistics and psycholinguistics can provide new insights into child language and describe more accurately how children learn languages.
5. Linguistics, together with psycholinguistics and communications theory, can give us clues on how language conveys meaning.
6. Linguistics can describe and explain the development of regional and social dialects of English.
7. Linguistics can provide sensitizing concepts that educationists and teachers can use. In this respect it is apparent that a field of applied linguistics must emerge in education -- educational linguistics. The post-war developments in the teaching of foreign language in this country are the result of the use of linguistic-sensitizing concepts to improve language-teaching.

Educators will have to resist the linguists' excessive enthusiasm for their science, an enthusiasm that leads them to hope that one day every little first-grader will be an analytical linguist. There is an inconsistency here. Linguists and educationists have demonstrated that by the time a relatively normal child comes to school he has an excellent subconscious command of the syntax of the language as he hears it spoken, not to mention an immense vocabulary. Still, some linguists somehow see the need for teaching children about the language they already use with the facility of an expert. Teachers have learned, however, that improved use of the language does not depend on the child's ability to describe the language in technical terms.

Reading instruction has much to learn from linguistics. Important new knowledge about language, how it functions, and how it is learned has been produced. This knowledge must be assimilated into the reading curriculum. The process must be presided over by educators primarily, perhaps under the banner of educational linguistics. In any case, the raw material for building the linguistics of reading is now available.

Hildreth, Gertrude. "Linguistic Factors in Early Reading Instruction," Reading Teacher, 18 (December, 1964), 172-78.

An article which expands upon the following main points: "A store of language devices to express meaning is accumulated by reading and also by writing and speaking. The spoken language is the major source of linguistic knowledge, and the major unit of meaning is not the single word but the phrase or sentence."

Gertrude Hildreth is Professor of Education, Brooklyn College, The City University of New York.

Hildreth suggest that the implications of the field of linguistics for the improvement of reading are as follows:

All these findings have significant implications for the improvement of reading. It is doubtful whether a child can become a fluent reader, comprehending fully what he reads, without a good oral language foundation and continued attention to oral language improvement.

Large time allotments for improvement of oral language usage in the school curriculum are justified, not only because children need this instruction to improve oral expression, but because learning to speak fluently the standard dialect is part of learning to read. To skimp on the time for oral language in order to have more time for reading defeats the purpose because word in oral language is actually part of learning to read. The recommendation is to shift some of the time from direct drill in reading to building up general and various skills through activities requiring oral expression.

A good rule is: never begin reading instruction without first taking into account the child's status in oral expression. Until the age of seven a child may still lack precise enunciation of several difficult consonant sounds. The assessment of readiness status should include appraisal of the beginner's use of the school language. Build oral language ahead of and along with reading lessons if children are to learn to read well. Giving children a rich language experience in kindergarten builds readiness for later reading lessons. Considerable attention has been given recently to listening as a neglected aspect of oral language comprehension. Listening with acute understanding carries over to reading with understanding.

Since language deficiencies may be the major handicap of slow learners, for every such child a thorough assessment should be made of oral language proficiency and past history of language development. In remedial work with slow learners and problem cases attention to all phases of language development may be as essential as specific reading drills, especially speech control, work on articulation, accurate pronunciation of words in the child's everyday vocabulary. The non-English speaking child confronted with the task of learning to read merits special attention in the language area. Instruction in English reading should be preceded by oral work until the child has caught up to the

typical school beginner's level in English usage. As much time should be spent on oral language as on reading lessons until the child is fairly independent in reading.

Another recommendation is to relate the language arts of oral usage, reading, and written expression in school instruction, that is, not only develop oral language as a background for reading lessons, but develop writing as an adjunct of reading. Spelling can be an aid to sounding better combinations . . . and word discrimination. Composing sentences helps children develop "sentence sense." Reading his own and other pupils' compositions extends the amount of material a child reads in words in his own vocabulary or that of his age group. Large time allotments are justified for written expression not only because the ability to write well is a practical skill everyone needs, but also because writing reinforces general language skills which are related to reading.

Reading should be taught from the beginning as a process of inferring meaning from sentences, rather than merely from words. "Where did the mother go?" "What do you think the boy did next?" "Why do you think the kitten got lost?" "Where do the baby birds live?" Answering each question gives the child experience with larger units of language expression. The teacher's object is to increase the child's store of word meanings in sentence contexts, to enlarge his vocabulary of syntax patterns along with his vocabulary of words.

These principles have important implications for the preparation of reading materials for both school beginners and older children. They have important implications for control of vocabulary, for attention to sentence structure, as well as sentence length and complexity in reading material prepared for children.

Reading material for beginners should make use of current experiences couched in the everyday spoken language the children know and use as a bridge to the less familiar written language and situations of the reading books. Begin with the words and expressions representing experiences that are close to the child, then the young learner can make fuller use of language clues in interpreting print. Make use of oral narrative, conversation, and dramatization for readiness in the early reading experiences.

Children taught reading in a language-centered program should not only have a more extensive and rewarding learning experience than those taught by mechanical word-drills, but they should develop the important reading skills of extracting meaning from a variety of syntactical patterns and associating appropriate speech melodies with the printed word.

Lefevre, Carl A. "A Longer Look at Let's Read," Elementary English, 41 (March, 1964), 199-203, 261.

A critical review of Let's Read: A Linguistic Approach, by Leonard Bloomfield and Clarence L. Barnhart, which criticizes the authors for developing a system of instruction in reading which emphasizes the relationship of letters to segmental phonemes, without adequate consideration of language structure.

Carl A. Lefevre is Professor of English and Chairman of the Communication Skills Program, Chicago Teachers College North.

The following passages highlight the criticism of Bloomfield's materials by Dr. Lefevre, and also indicate his attitude toward areas of possible contribution of linguistics to reading instruction.

The reading method and primary reading materials developed by Leonard Bloomfield, new in the thirties, were belatedly published in 1961. . . . It would be shortsighted to assume that the Bloomfield theory and materials of twenty-five years ago--and the derivative materials of today--embody anything approaching the potential contribution of reading and reading instruction.

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The story runs that Bloomfield first became concerned with primary reading when his own son met up with reading instruction in school, and that he developed these reading lessons to help his son learn to read. The scientific rigor of Bloomfield's searching studies in pure linguistics was by no means equaled in this pioneering effort in educational linguistics. In spite of his encyclopedic scholarship in language as a general field, and his close study of American English, Bloomfield's approach to reading instruction was rigidly narrowed to a consideration of the relationship of letters to segmental phonemes. In other words, to spelling.

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It seems strange that a linguist would teach children to read purely graphic elements of printed words, having no relation to language structure, as though they provided a significant basis for classifying words into groups. Yet Bloomfield does just this with what he terms "final groups," exemplified by words ending in "--an" and "--at" (ban, can, fan, man, Nan pan; bat, cat, mat, Nat, pat).

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...The main objection to the Bloomfield spelling-reading lessons is the rigid insistence throughout on the spelling and sounding of words in artificial sentences, made up at best of foreign-sounding word groups, and carrying strange rhymes and tunes. If used as prescribed, this method and these lessons might easily contribute further to that word-by-word reaching that already characterizes many of our worst reading cripples, both in school and in later life.

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Reading is basically a language-related process that must be studied rigorously in relation to what is known about the structure of the American language--in relation to all that is known today, not merely spelling related to segmental phonemes. Reading instruction must take into account intonation patterns, patterns of syntax (including expansions, substitutions, transformations), structure words, and word-form changes. It seems probable that much more important to reading instruction than spelling is. They are unquestionably more important to a structural analysis of American English as a language system.

The fundamental problem of reading instruction is to teach the relationships of the graphic system, writing and print, to the language as a whole--that is, to speech. In essence, reading and writing patterns are graphic counterparts of spoken language patterns. The key problems requiring solution involve the complex interrelationships of two different symbol systems, one a function of mouth and ear, the other of hand and eye. Language and literacy are intimately interwoven in their entirety. Nothing more and nothing less is at the bottom of reading and reading instruction.

Townsend, Agatha. "Linguistics and Reading Instruction," Reading Teacher, 17 (May, 1964), 623-26.

A discussion of the influence of the field of linguistics on reading instruction in beginning reading and in the higher grades, and of certain basic controversies regarding a linguistically-based approach to reading.

Agatha Townsend is Reading Consultant, Stroud Union School District and a Contributing Editor to The Reading Teacher.

Townsend describes the uncertainty regarding the meaning of some of the terminology, defines the field of linguistics, and discusses certain basic controversies in the following paragraphs from this article:

The field of linguistics is so large, and it is such genuinely unfamiliar territory to most teachers, that it is not surprising to find real uncertainty about the meaning of such phrases as "a linguistic approach to reading," "the linguistic substitute for phonics," or "a set of readers based on sound linguistic principles." The teacher's lack of confidence is justified, also, by the fact that these are still early days in the application of linguistics to reading, and while there is a good deal of publication of a theoretical nature, there is as yet only a handful of reports of experimental programs. Articles may appear which are extremely partisan, but on close examination it is revealed that the authors are swayed more by the potential of a linguistic program or by the dangers they see in the future for such programs than they are by actual, measured and demonstrated results with specific classes.

What is the field of linguistics? Material on linguistics will immediately become more intelligible when the reading teacher recognizes the extent of the field and the points at which it impinges on reading instruction. Much that is included in the scientific study of language has to do with the past--with the development of language families, the histories of words and other parts of the speech patterns of a single language, and the development of the structure of languages. Much of this material is more familiar to the foreign language teacher than it is to the English teacher below the college level, and much of it is incorporated in liberal arts work rather than pedagogy.

The linguist's central concern is with the language as spoken, but obviously he must depend on written records for the past speech. He must, therefore, for his own purposes know how and to what extent the grapheme or written expression of a word particle parallels the phonemic or spoken pattern. The linguist is concerned with statements made about "phonics"--for instance that English is an imperfectly phonetic language--he simply points out that it is true the speaker cannot deduce pronunciation by attaching up the sounds of successive letters, but that nevertheless the basic fact about English writing is that it does represent the spoken language; the written language is not pictorial or off on some other track as far as representation is concerned. It might be added that while supposed "phonic irregularities" bother some reading theorists, the linguist tends to take the irregular form out of an incompatible rule system and point out under what generalization its spelling-sound relation may be explained.

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Certain basic controversies. It should be quite clear to anyone interested in the history of reading and its teaching that the methods used for the beginning steps have changed from time to time, and changed, at least in the

history of American schools, for the best reasons. While Fries . . . makes a good case for the application of intelligent modifications long before the day of scientific research findings, the more rapid shifts of the last thirty or forty years have come about at least in part because of studies showing how readers were disabled under current methods, but might respond under new ones. Should we, then, adopt any method with the understanding that it will need to be superseded?

Jeanne Chall . . . in her excellent discussion of beginning reading underlines not only the conservative findings of research, in contrast to the radical claims made by "schools" of teaching, but also points to the significant research which is conspicuous by its absence. She says, "There were practically no studies that would meet strict experimental criteria. The different methods compared were so poorly defined and described, and were in most instances so similar, that it will be difficult to interpret the findings with any degree of certainty." . . . Note that she was speaking of a very large total of research on beginning reading, not just on one type of instruction.

If a linguistically-based approach to reading is to secure a fair evaluation, it should be subject to the most carefully controlled experimental scrutiny, as well as the most rigorous intellectual study. It deserves more from both its friends and its critics than that it should fail because of misinterpretation, carelessness, or oversimplification.

Cooper, Bernice. "Contributions of Linguistics in Teaching Reading," Education 85:9 (May, 1965), 529-532.

In this article Professor Cooper suggests that at present the real contribution of linguistics to the teaching of reading may not be in the translation of linguistic principles into specific methods of teaching but in helping teachers to understand the nature of language and to use this understanding in all phases of the curriculum involving the extensive use of language.

Bernice Cooper is Associate Professor in Education, University of Georgia, Athens, Georgia.

Cooper, in the following statements from the article, focuses attention on some of the specific suggestions for teaching beginning reading as outlined in "Linguistics and Reading" by Fries. The following specific methods are discussed:

1. Letter Forms

Fries recommended habit-forming practices to develop high-speed recognition responses to the principle of our alphabetic writing during the "transfer" stage. The purpose of these practices basically is to develop the ability to see the significant contrastive features of the separate letters. He emphasized that:

There must be no attempt to connect the letters themselves with sounds. Nor should the groups of letters used in the practices of "alike" or "different," which happens to form words for us who can read, such as IT, IF, FIT, HIT, AT, HAT, be treated at this preliminary stage as words to be pronounced and connected with meanings (1, p. 194).

Traditional exercises in readiness materials have been planned to develop visual perception which includes an awareness of likenesses and differences. These activities, however, have usually been based on pictures of objects rather than letter forms. Perhaps more exercises in visual perception using letters and combinations of letters in the prereading stage would help to develop a keener and quicker recognition of letter forms.

2. Letter Groups

Fries stated that "this ability to identify the difference between three-letter groups is so important a skill at this stage that the variety of practices necessary for its full development should become the chief activity of the child." (1, p. 193). This skill does offer possibilities for the classroom teacher. However, whether it should become the chief of the prereading child may be questioned. All the goals of a reading program should be considered and attention should be given to all the skills with varied activities included from the beginning stages.

3. Capital Letters

Linguists suggest, too, the use of all capital letters in the beginning stages of learning to read; that is, during the time the reader is learning contrastive features and clusters of letter groupings (1, pp. 190-191). Why begin with upper case forms and then have to shift to the use of lower case forms in which the books he will use are printed. This suggestion seems to create new problems for the teacher rather than alleviate old ones.

4. Spelling Patterns

The use of the spelling pattern, for example, (consonant)-vowel-consonant, has also been oversimplified. The recommended presentation of the spelling pattern of at, bat, cat, fat, gat, hat, . . . , . . . omits any suggestions as to how an awareness of sounds represented by the different beginning symbols will be achieved (1, p. 171). The same difficulty is apparent in bat, bad, bag, ban, . . . , . . . when the ending is different (1, p. 172). To one who reads, this seems simple; however there is an intermediate step which must be provided for the beginner. Or, consider the spelling pattern of man, mane, mean (1, p. 201). Teachers generally use the single vowel, final e, and vowel digraph principles to develop an understanding of the difference in words of this type. The linguists object to these principles on the basis that they are structurally incorrect. However, the child needs some clue other than "great practice to respond automatically to the contrastive features that separate these three patterns." (1, p. 201).

5. Getting Meaning

The act of reading implies getting meaning from the printed symbols. The teaching of reading without meaning is mechanical and dull. Although Fries stated that "even from the beginning there must be complete meaning responses" (1, p. 204), some of his suggested combinations leave doubt as to whether they are meaningful; for example, BAT A FAT RAT, A CAT AT BAT, CATS BAT AT RATS (1, p. 203).

6. Practical Uses of Linguistics

The questions raised in the above discussion are not intended to imply that linguistics has nothing to offer. Rather, it questions the specific suggestions made particularly for beginning reading. The reactions of teachers interviewed by the writer reinforce the conclusion that, at this time, perhaps the best way to take advantage of the knowledge of linguistics is for teachers to become better acquainted with the field. They would then be in a position to use this understanding in all phases of the curriculum dealing with language.

F. Early Letter Emphasis Approaches

For a number of years now Donald Durrell and Helen Murphy at Boston University have emphasized the value of specific teaching of letter names and sounds at an earlier time and in a more systematic manner than is generally done in most basal reading programs. Several research studies conducted by students of Durrell at Boston University have produced results which support Durrell's position. Durrell also suggests teaching techniques and materials which provide for more frequent pupil responses in learning to recognize letters and words. A more complete reference on some of his suggested methods is his book Improving Reading Instruction, which is listed under Additional References.

This section on early letter emphasis approaches includes two references by Durrell, including one in which he summarizes several research studies related to this approach, a reference by Murphy, and one by Linehan, a student of Durrell.

Durrell, Donald D. "Efficient Reading Instruction," Report of the Regents Conference on the Improvement of Reading, pp. 12-15. Albany: University of the State of New York, 1962.

A report which compares different approaches to reaching at the first grade level, using the same basal readers.

Donald D. Durrell is Professor of Education at Boston University School of Education.

Durrell shows the results of a comparative study of two different approaches to teaching reading at the first grade level, and analyzes the reasons for the higher reading achievements in the classes which had "highly differentiated and enriched instruction."

There are many communities in which reading achievement is excellent, many in which it is poor. The difference lies in the efficiency of instruction. In the higher achieving classrooms every hour of each pupil's time is used well; in the low achieving classrooms there is seldom an effective hour of instruction. Using the same basal reading systems, one community may produce uniformly high achievements while another produces generally low achievements.

As the Boston University Reading Clinic during the past 30 years, we have come to expect extremely rapid gains--one year's growth in reading every two months. There is no mystery about the clinic procedure; it is simply sensitive teaching of reading. There is no psychological probing, no fancy gadgetry, no miracle method: reading instruction is precisely fitted to the child's level, to his progress rate, to his weaknesses in the component skills of reading, and he works every minute--is it always his turn. But this is individual instruction in the hands of experts in reading.

For a number of years we have been searching for ways of providing equally sensitive instruction in regular classrooms with 25 to 30 pupils. No basal reading system in the English world at present does this job. Each must be supplemented heavily for the slow learners. Basal readers are admirably designed, providing an orderly sequence of essential steps to reading; the difficulty is that each child deviates from that orderly pattern from the first day of school, with the result that the basal reading system seldom fits any child well. For some children there is not a single hour of suitable instruction in reading in the entire year; these children become "reading disability cases."

To illustrate the difference between excellent teaching and poor teaching of reading, let us take the first grades of two communities in the Greater Boston area. The chart below presents a distribution of first grade reading achievements in Lynnfield, Massachusetts, last June, as compared to "Town X" --both using the same basal reading system.

	Lynnfield (202 pupils)	"Town X" (196 pupils)
Reading above third level	51%	5%
" 2.5 -- 2.9	24%	12%
" 2.0 -- 2.4	17%	32%
" 1.5 -- 1.9	8%	23%
" below 1.5 (Primer)	0%	28%
Average reading achievement	3.2	1.9
Per cent above national norms	92%	49%
Average intelligence quotient	106	114
Average class size	25	24
Public school kindergartens?	No	Yes

Although the same basal reading system was used as a "point of departure" in both towns, the classroom services to the children were very different. A comparison of the services to pupils is shown below:

Lynnfield	"Town X"
First week: Every pupil tested to find the following: His familiarity with letters His ability to identify sounds of words His rate of learning sight words	Beginning reading postponed to October 1, for "robins" November 1, "bluebirds" December 1, "sparrows" Kindergarten-type activities
Reading instruction began the first week for all.	Began October 1 in reading Used "reading readiness" activities of basal system, mostly picture-matching Followed the basal system lessons, at regular pace Used phonics practices of basal reading system Supplementary reading at the end of the reading program "Taking turns" in large group. No mutual aid to pupils.
Superior pupils: (high in learning rate, word-perception skills) Started at once in readers. All reading readiness omitted. Those already reading well began library reading. Formal instruction in applied word analysis at an advanced level (phonics) Moved rapidly through readers, then to library books and supplementary readers Pairs of teams-of-three in self-directing lessons, for mutual aid and increase of practice per hour	Middle group began November 1. Low group began December 1. Used "reading readiness" activities of the basal system Sight words taught, taking turns responding, mastery not required. Response to symbol rather than meaning.
Pupils with poor word perception backgrounds: Began ear-training and letter knowledge lessons the first week of school New words presented at a "mastery rate" to give the feel of successful reading	

Ear-training and letter knowledge lessons used whole-word keeping meaning high, to permit faster pupils to acquire sight vocabulary. Multiple-learnings--auditory, visual, writing, speech. "Taking turns" avoided by every-pupil response and pupil-team techniques. Slower teams of pupils given extra practice at points of difficulty. Word perception practice adjusted to learning rates of teams; response-to-meaning techniques used. Oral reading practice in two-and-three-pupil teams, allowing frequent "turns". Workbook activity in pairs for mutual aid. Independent reading closely adjusted to the child's level, paired reading for exchange of ideas.

Phonics of basal system used; casual ear-training, elements isolated, mastery not expected. Pupils taught in large groups, same lessons for all.

Oral reading practice in large group, waiting turns

Workbook activities solo, no mutual aid

Some supplementary reading, self-selected, solo work, no mutual aid or exchange

Supervisory philosophy:

"Every child can learn to read in first grade if suitable instruction is provided. Let's search for and exchange effective materials and procedures. Let me help you with any child or group in difficulty.

"Many children are not ready to read. Wait until they are ready. Don't press for mastery. Give them time and they will learn."

At the end of the year, in which town do you find the "emotionally disturbed" children? In "Town X" where the explanation of the reading failure is "immaturity" and "emotional problems." Children enjoy successful learning. Successful learning is the best known therapy for emotional problems, while unsuccessful learning is one of the best producers of emotional problems.

Will this superiority continue as the children progress through later grades? Only if the superior service to pupils is maintained. A fine start can be dissipated through poor instruction in later grades, but a fine start is obviously better than a poor one. Variations in the quality of instruction occur at all grade levels; differences in classroom achievements as later grades, even greater than those reported in the first-grade chart, are easy to find.

The key to superior reading achievement is highly differentiated and enriched instruction. The discussion about minor details of phonics is beside the point; every competent scholar in reading and every basal reading system have always presented phonics. . . .

. . . This is not to say that all phonics programs are of equal merit; the point is that the differences are unimportant as compared to the extreme differences in the quality of differentiation and enrichment of instruction in the classroom.

How is the reading service in classrooms to be improved? The improvement in Lynnfield resulted from the fine supervisory service of Nancy Santeusano, whose stated philosophy is backed by clinical experience in reading and laboratory training in supervision. The key is better teacher education, both in-service and preservice, plus the development of materials which make it easier to differentiate instruction and which incorporate principles derived from research findings on the efficiency of instruction. The complex abilities of superior teaching cannot be transmitted by our present teacher education methods which are preoccupied with verbalization of principles and theories. All of the teachers in "Town K" were certified teachers, with higher salaries than those in Lynnfield. All were products of teacher education institutions--many took courses with me! But none had the experience of joining with the professor in the intricate task of differentiating and enriching instruction for 30 first-grade pupils--reconciling educational principles with educational practice. I am convinced that schools of education must move their students to the schools, just as medical instruction moved to the hospitals at the turn of the century. As medicine has great "teaching hospitals," we must have public school systems which are of the quality to serve as great "teaching centers" for teacher education.

Durrell, Donald D. "First-Grade Reading Success: A Summary," Journal of Education, Boston University, 140 (February, 1958), 2-6.

A report on a study made to assure reading success among first-grade children; to evaluate reading readiness practices and concepts; and to study relationships among various aspects of reading growth.

Donald D. Durrell is Professor of Education, Boston University School of Education.

In this article Durrell summarizes the purposes, nature, and findings of several related research studies which evaluated an early letter emphasis approach in first-grade reading.

The purposes of the study were three: to assure reading success among the first-grade children; to evaluate reading readiness practices and concepts; to study relationships among various aspects of reading growth.

Clinical services indicated that reading failures at first-grade level were usually overcome when the following abilities were established through effective teaching: knowledge of letter names, ability to identify sounds in spoken words, knowledge of applied phonics. Additional services commonly needed were meaningful word recognition practice and special help in beginning silent reading. It appeared that if these needs were identified and served in initial classroom instruction, much reading difficulty might be prevented. In addition, it was hoped that rapid learners might make higher achievement if unnecessary instruction were eliminated from the reading program.

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Since a general application of the methods to all classrooms would permit no comparisons of achievement except with norms on standard tests, a controlled study was planned. This consisted of pairing twelve experimental classrooms with twelve control classrooms in the same schools. Both groups used the same basal reading system but experimental instruction emphasized early training of letter names and sounds, while the control group followed the basal system practice of giving such instruction incidentally throughout the year.

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A summary of the major findings and their implications follows:

1. Most reading difficulties can be prevented by an instructional program which provides early instruction in letter names and sounds, followed by applied phonics and accompanied by suitable practice in meaningful sight vocabulary and aids to attentive silent reading. Among the 1,500 children measured in June, only 18 had a sight vocabulary of less than 50 words; this is slightly more than 1 per cent of the population. Four percent, or 62 children, had a sight vocabulary of less than 100 words. . . .
2. Early instruction in letter names and sounds produces a higher June reading achievement than does such instruction given incidentally during the year. . . .
3. Children with high learning rates and superior background skills make greater progress when conventional reading readiness materials are omitted from their reading programs. . . .
4. Children entering first grade present wide differences in levels of letter knowledge:
 - a. All children were able to match capital letters as well as lower-case letters. Exercises in this ability should be omitted from reading readiness materials. It appears to follow that matching of non-word forms and pictures as preliminary instruction for letter and word perception is relatively useless. . . .
 - b. The average child in this population of first-grade children could, in September: give the names of 12 capitals named and 12 lower-case letters named; write 10 letters from dictation. . . .
5. Tests of knowledge of letter names at school entrance are the best predictors of February and June reading achievement. . . . They relate most closely to learning rate in September. . . .
6. Chronological age show little relationship to any of the factors measured at any testing period. It correlates negatively with reading achievement. . . . Even mental age responds only slightly to chronological age differences in first grade. A difference of nine months of chronological age produces a difference of three months of mental age. . . . Apparently no solution to reading difficulties is to be found by raising the entrance age to first grade.
7. Mental age, as measured by the Otis Quick-Scoring Tests of Mental Ability, has a low relationship to reading achievement and to letter and word perception skills. . . .
8. There appears to be no basis for the assumption that a sight vocabulary of 75 words should be taught before word analysis skills are presented. Of the 1,170 children tested in February, only 9 achieved a sight vocabulary of more than 70 words when they knew fewer than 20 letters. Of the children who knew more than 20 letters, 675 had a sight vocabulary of more than 70 words. While a knowledge of letter names and sounds does not assure success in acquiring a sight vocabulary, lack of that knowledge produces failure.

Linehan, Eleanor B. "Early Instruction in Letter Names and Sounds as Related to Success in Beginning Reading," Journal of Education, Boston University, 140 (February, 1958), 44-48.

A report of a research study designed to evaluate the effect of a program of systematic teaching of letter names and sounds upon first-grade reading achievement.

Eleanor B. Linehan is Supervisor of Elementary Education, Waltham, Massachusetts.

The purpose, methods and materials of instruction, and a summary of the nature and results of the study are given by Linehan as follows:

Basal reading systems vary in emphasis and time of teaching letter names and sounds in first-grade reading. Few insist on early teaching of letter names and sounds; most follow the practice of starting reading instruction with word presentation, with letters and sounds being taught later in the year. Often the teaching of letter names and sounds is incidental with no attempt at mastery during the year. It was the purpose of this study to evaluate the effect of a program of systematic teaching of letter names and sounds upon first-grade reading achievement.

. . . The twelve experimental and twelve control classrooms all used the Scott, Foresman basal readers for first grade. The control group teachers were to follow the manuals of the basal readers to the best of their ability. The chief differences in the experimental and control programs were as follows:

1. Basal reader introduction:

Control: Started immediately with lessons prescribed by the manual.
Experimental: Delayed until letter names were mastered.

2. Progress rate provision:

Control: Related to speed of acquiring a sight vocabulary.
Experimental: Related to progress in word analysis abilities.

3. Word recognition teaching:

Control: Major emphasis on establishing a sight vocabulary.
Experimental: Sight vocabulary instruction given, but incidental until letter names and ear-training were fairly well established.

4. Letter names:

Control: Taught incidentally throughout the year.
Experimental: Systematic teaching during the first three months.

5. Ability to identify sounds in spoken words (ear-training):

Control: Some teaching of consonant sounds in words.
Experimental: Early systematic teaching of ear-training.

6. Phonics:

Control: Incidental teaching of sounds of letters throughout the year.
Experimental: Sounds of letters and applied phonics taught when letter names and ear-training were well established.

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The experimental program required teacher preparation of much of the instructional material. The teaching of letter names began with capital letters in meaningful situations, followed by the teaching of lower-case letters. A great many games and devices were made by the teachers, and these were duplicated and exchanged. Ear-training was presented through the use of lessons

from Building Word Power, through the use of picture charts containing words with similar beginning or ending sounds, through techniques of noticing the the speech organs when words contained certain sounds. Successful devices for ear-training were exchanged among teachers. The program in phonics was started as soon as groups of children had a reasonable mastery of letter names and were able to identify sounds in spoken words. The phonics program emphasized sounds accompanying printed words, but practice was given on sounding letters separately. In addition, there was much practice in applied phonics which emphasized word meaning. For example, the words call, fall, and tall were presented; children were told that every word said all at the end, then were asked, "Which word describes a big man?" "Which does your mother do when she wants you to come?" These exercises were also built and exchanged by teachers. A fuller description of the lessons used in the experimental program may be found in Improving Reading Instruction.

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Summary. An experimental group of 314 pupils in twelve classrooms was paired with a control group of 300 children in twelve classrooms in the same schools. On September tests the control pupils were higher than the experimental pupils in mental age, learning rate, and nine of twelve tests of letter knowledge. Only the difference in learning rate was statistically significant.

The experimental group followed a program of systematic presentation of letter knowledge and phonics development with an incidental program of word recognition; the control group used systematic presentation of word recognition with an incidental program of letter and phonics development.

February tests showed statistically significant differences favoring the experimental group in all tests: oral reading, silent reading, applied phonics, hearing sounds in words, and all tests of letter knowledge. June achievements were also in favor of the experimental group, with statistically significant differences in oral reading and paragraph meaning; smaller differences were found in word classification, silent reading, and scores on the Detroit Word Recognition Test. The experimental group was significantly superior in all tests of phonic ability.

Murphy, Helen A. "A Balanced First Grade Reading Program," Challenge and Experiment in Reading, J. Allen Figurel, editor, pp. 33-36. International Reading Association Conference Proceedings, Vol. 7, 1962. New York: Scholastic Magazines, 1962.

A description of a balanced reading program in the first grade which includes provision for developing readiness for reading, testing learning rate and knowledge of letter names, learning speech sounds and letter names, and adapting instruction to children with different learning rates.

Helen A. Murphy is Professor of Education at Boston University School of Education.

In the following statements Murphy suggests provisions she recommends for a first-grade reading program which would include ear training, letter knowledge, applied phonics, and quick perception of words:

The expectation of all children when they start grade one is that they will learn to read. We know enough about the learning process, and the problems involved to guarantee to them that they all will meet this expectation. We

can determine the first week of school, through simple, informal tests, each child's strengths and weaknesses, and we can provide the necessary teaching to build on his strengths and correct his weaknesses.

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Let us consider a program what will enable the child to acquire the tools he needs in order to learn to read.

This program must include:

1. Ear training which is the basis for phonics
2. Letter knowledge which assures the ability to recognize words
3. Applied phonics which provides practice in unlocking new words
4. Word recognition which gives practice in quick perception

Tests of learning rate, knowledge of letter names and sounds should be administered during the first week of school. Children with high learning rates and high scores on knowledge of letter names and sounds should be introduced immediately to the basal reading program, omitting the readiness material. Children with some knowledge of letters and sounds should have a concentrated program to teach these abilities, introducing some vocabulary through experience charts, and the children with little or no knowledge of letters and sounds and low learning rates should have extensive practice to develop these abilities before the reading program is introduced.

There is much evidence that many children do not hear separate sounds in spoken words. A child acquires language through imitation. He hears whole words; probably the smallest unit he ever hears as he learns to speak is a syllable, not separate letters. Exercises which require him to listen for differences in pitch using a piano or other musical instruments or differences in voices or to recognize sounds, as tapping or bells, may be effective as attention drills. These may be used until he has developed the habit of careful listening, but they will not help him to notice the difference in the first sounds of bird and dog, or men and nine, nor the difference in the final sounds in cart and calf, and he must recognize such differences if he is to learn to read without confusion.

It has not been possible to establish an order of difficulty of the various letter sounds, but it seems quite clear that in general, beginning consonants are the easiest to identify, then beginning blends, rhymes, and final consonants. Frequency of letters in the speaking vocabulary of children and in the vocabularies of primary grade textbooks, provides a good basis for introducing the letters. "s", "b," hard "c," and "t" have the highest frequencies in these lists. Lessons introducing these sounds may be presented to the whole class at the beginning of the year and will enable the teacher to locate the children who have a good ear for sound and those who need special help.

A lesson in ear training should include practice in listening for a sound or sounds in words, the visual presentation of some words and responses by each child to the sound and name of the letter which is being practiced. The teacher should dictate many words, always keeping the meaning high and always being alert and enthusiastic.

Many children come to school knowing the names of some letters. The twenty-six letters, capital and lower case, can be taught in ten days. All of the capital letters can be introduced in isolation in meaningful situations. Television channels, Kellogg's K, SOS, are samples of such opportunities. The children may be taught their initials and this will save valuable teacher time as they can identify their own papers and materials. Unless a school system does not allow the teaching of manuscript writing, written practice is interesting to the children, and effective in fixing the letters. Here again, it is possible to introduce vocabulary which some children will acquire very readily. Newspaper advertisements may be used very effectively in teaching the letter names.

In remedial work the first thing checked is the child's knowledge of letter names, and if he doesn't know them, he is taught them immediately. If we teach them before we introduce words, we will eliminate the possibility of the child's confusing such words as want and went, or saw and was.

As soon as the child knows letters and sounds and has begun to build a sight vocabulary, he should have practice in applied phonics, using his knowledge to solve new words. Begin with the substitution of beginning consonants, then initial blends, final consonants, and medial vowels. Here again, it is important to keep the meaning high. The teacher writes a group of words on the board. She defines one of the words, but does not say the word. The children respond to the definition with the word. Many different situations for a single word may be presented which will keep the child's interest, and at the same time, provide excellent practice. To give practice on ball, bell and bill, here are a few items which could be used.

Baseball is played with a bat and a _____. (ball)

Cinderella went to the _____. (ball)

We heard the ring of the door _____. (bell)

A bird's beak may be called a _____. (bill)

The man finished the work and sent his _____. (bill)

At the close of a lesson of this type, it is well to have the children read some sentences which include some of the words so that the knowledge is transferred immediately into reading.

G. New Alphabet Approaches

At the International Reading Association Conference held in Detroit, May 4-8, 1965, a number of speakers urged caution regarding the implementation of new alphabet approaches unless they are clearly demonstrated to have distinct advantages. Arthur Heilman stated in reference to the Gattegno Words in Color that "not a single piece of research lends credence to this approach." He further questioned whether the use of color adds anything and suggests that the 39 colors used to represent all of the speech sounds appear to pose a difficult task for children to master. At this conference Heilman also questioned the desirability of using the Initial Teaching Alphabet. He pointed out the possible waste of effort in teaching an alphabet which is discarded after a short period, and also the likelihood of children becoming confused by the changes in phonetic spellings in this new alphabetic Heilman further reported that in a recent study of Bethlehem (Pennsylvania) children, there were no significant differences between the experimental and the control groups. Other conference participants, Sheldon and Fry also questioned the tentative results of experiments which have

supported the use of ITA. Sheldon observed the use of ITA in Great Britain and stated that he saw uncontrolled materials and influences, and, also, found the Hawthorne effect.

Articles in this section describe two approaches to early reading instruction which are often referred to as new alphabet approaches, but are sometimes considered phonic approaches because they are designed to promote ease in recognition of phonic elements through the use of special symbols or through a color code. Articles by proponents of ITA such as John Downing and Albert Mazurkiewicz have been balanced by other authorities in the field who see possible shortcomings in this approach. A lack of reference in the literature on reading has precluded citing references on the Words in Color approach, other than by those associated with the promotion of the Gattegno system.

Barrett, Thomas C. "i/t/a: A Step Forward or Sideways?" Educational Leadership, 22 (March, 1965) 394-97.

A description of i/t/a which includes a summary of tentative research findings in England and in Lehigh-Bethlehem, Pennsylvania, and an evaluation of certain aspects of these research reports.

Thomas C. Barrett is Assistant Professor of Curriculum and Instruction, University of Wisconsin, Madison.

The interest generated by experiments with the Initial Teaching Alphabet have led to reports in the popular press which would have one believe that this augmented alphabet holds the solution for most all reading problems. Thomas C. Barrett cautions against implementing the use of ITA on a wide scale until more complete and more adequately controlled research is conducted on it in the United States.

Among the more recent and more unique innovations in reading instruction is the Initial Teaching Alphabet (i/t/a) created by Sir James Pitman. Briefly, the i/t/a is an augmented Roman alphabet utilizing 24 of the original letter symbols and 20 new symbols which generally look like combinations of the original letters. By adding the 20 new symbols, Pitman's i/t/a makes it possible for each phoneme or sound in the spoken language to be represented by a single written symbol or grapheme.

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What these interim results from the investigation in England mean for the teaching of reading on the United States appears to be clear at the present time. First, it seems appropriate to observe, on the basis of what is known, that the findings in England cannot be generalized across the Atlantic Ocean for a number of reasons: (a) the number of children upon which the interim results are based is quite small; (b) the children in the study began to learn to read at the ages of four and five, while children in the United States generally begin reading at the age of six; (c) Downing's investigation in England will not be completed until 1974, and, on the basis of the principal investigator's statements, the interim results are still tentative.

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How can one evaluate the Lehigh-Bethlehem Study as described in the progress report? Since the main hypothesis of the Lehigh-Bethlehem study is that differences in achievement in reading between the i/t/a group and T. O. (traditional orthography) group can be attributed to the differences in the alphabets used, the study itself should rule out factors, other than the

differences between the two alphabets, which might account for any differences in achievement. However, the first interim report leaves a number of possible influencing factors open to question.

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Is i/t/a a way or the way to teach beginning reading? On the basis of the work done in England and the first year of the Lehigh-Bethlehem study, it is apparent that i/t/a can be utilized as a medium to teach some youngsters to read T. O. very well. Whether i/t/a is the only reason for these youngsters' success is a moot question at this moment.

Downing, John "I T A (Initial Teaching Alphabet) Reading Experiment," Reading Teacher, 18 (November, 1964), 105-10.

An article which summarizes the nature of the Initial Teaching Alphabet and reports on the preliminary results of research in British schools in the use of this alphabet.

John A. Downing is the Reading Research Officer of the Reading Research Unit, University of London Institute of Education.

Downing describes the aspects of I T A which he believes offer advantages over the usual orthography, and indicates that tentative research reports suggest increased gains in reading, spelling, and creative writing through the use of this supplementary alphabet:

In September 1961 four hundred children in England began to learn to read with a new alphabet specially designed to give young children confidence in reading through a greater certainty of success in the beginning stage.

Sir James Pitman . . . is the inventor of the Initial Teaching Alphabet (earlier known as the Augmented Roman Alphabet). His idea is that young beginners should use the more simple and more reliable i.t.a. (Initial Teaching Alphabet) until they have become confident and fluent in reading books printed in it, and that they then should transfer their skill and confidence to reading books printed in the traditional alphabet and spelling of English. The characters of i.t.a. and its rules of spelling have been very carefully designed to make it easy for children to transfer from i.t.a. to standard print. . . .

In the research conducted by the Reading Research Unit of the University of London Institute of Education, attainments of children using i.t.a. are being compared with the achievements of pupils learning with traditional orthography (t.o.). As far as possible all factors other than the alphabet and spelling in the beginning reading books are being held constant in the two groups of classes (this includes an attempt to control the "Hawthorne Effect"). If the reading attainments of the two groups differ widely, therefore, we may trace the cause to differences in the alphabet and spelling.

The progress of the two groups has been very different indeed. After only five months the four-and five-year-old beginners who were using i.t.a. materials were significantly in the lead, and their superiority increased as the months went by. By the end of the first school year the average i.t.a. child was at Primer 2 of the reading program, while the average t.o. pupil was still at Primer 1. Before the middle of the second year the average i.t.a. child had moved to Primer 4, while the t.o. boy or girl had got to

Primer 2. After two years the position was beyond Primer 5 (Grade 2-ii) for the average pupil in the i.t.a. classis as compared with Primer 3 in the classes using t.o. . . .

3. Too many phonic print-signals. In our traditional alphabet and spelling there is a wide variety of ways of signalling in print the restricted number of basic sound units of English. For example, in too. there are at least eighteen different ways of spelling the sound common to such words as zoo, shoe, grew, through, do, blue. In i.t.a. this variety is reduced to one single symbol for the single sound. . . .

Unfortunately for the English-speaking child, his traditional printed code is extraordinarily complex and inconsistent. The i.t.a. code, however, has:

1. Consistent spelling. In t.o. letters cannot be relied upon to keep the same sound value, for example, the use of the letter o in do, go, women, gone, one. In contrast, i.t.a. is much more consistent as a code for spoken English. . . . He, therefore, finds that he can rely on the code, and is not led to doubt his rational approach to such problems.

2. Consistency of direction. In traditionally printed English we read words from left to right, but within many words the letters are not to be read from left to right in the early primitive decoding stage of learning. For example, in the word made the first sound is signalled by the first letter on the left, but the second sound is signalled by letters two and four and the child must reverse from right to left to read the final sound signalled by letter number three.

In i.t.a. the left to right rule of reading is never broken. . . .

3. Reduced complexity of phonic symbols. The traditional alphabet does not have enough letters to provide one letter for each of the forty or so sound units of English; instead, letters have to be used over again in a variety of combinations. For example, the letters ch are used in t.o. to represent a different sound in chat from either of the sound indicated by c and h separately in cat and hat. In i.t.a. a special character can be used for this sound. . . .

This attempt to make i.t.a. a more reliable code for young beginners seems to have produced dramatic results in our research. The pupils learning to read and write with i.t.a. have demonstrated great superiority in word building. For instance, on the Schonell . . . graded word reading test at the end of the first year the average i.t.a. learner could read 19 test words or more on the i.t.a. version of the test, whereas the average t.o. pupil using conventional print could read only 5 test words on the same test in conventional print. At the beginning of the fifth term (six months later) the average scores were 37 test words read correctly in the i.t.a. group and 11 in the t.o. group. . . .

This superiority of the i.t.a. pupils is not confined to phonic word-building. They are also advanced in comprehension, accuracy in sentence reading, and speed of reading. According to Southgate's recent report . . . their creative writing, too, is superior in both quality and quantity.

Children Readily Transfer to Standard Print. In the schools using i.t.a. each child makes the transfer to reading traditional print when he individually is ready for this step. In our experiments a very few children have been transferred from i.t.a. to standard print after only two or three months, but most appear to reach the necessary level of fluency in i.t.a. during the second year of schooling.

Fluency in reading i.t.a. is desirable before transfer is executed, because Sir James Pitman is his design of the alphabet has preserved in i.t.a.--to the greatest extent compatible with the purpose of easier teaching--those same cues, generally situated in the top part of the line of print, which we use when we have achieved fluent reading of the conventionally printed page. A minority of words do change more drastically in appearance, but children can guess these from context. Once a high level of fluency in i.t.a. has been achieved, the pupil will have developed the necessary skills of using the minimal cues and contextual clues which will ensure a smooth transfer.

Eighteen months after beginning to learn to read with the new alphabet the i.t.a. pupils achieved very superior scores on tests printed in the traditional alphabet and spelling. The children who began with i.t.a. and later transferred to t.o. have read the latter with much greater accuracy and comprehension than children who have been learning with t.o. from the beginning. . . .

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The report on the first two years of the i.t.a. experiment . . . stated that creative writing appears to be much improved in i.t.a. classes, and some teachers claim that "the standard of creative writing has improved almost beyond comparison." These claims are at present under objective investigation at the Reading Research Unit, but already they have some support from Southgate, who has observed in her independent study of i.t.a. . . . that "Free writing in the class appeared more spontaneous, prolific and correctly spelt than is usual with such young children."

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It is noteworthy that by the middle of their third year of schooling the i.t.a. pupils are able to spell t.o. words significantly better than the children who have been reading and writing with t.o. only.

Although the spelling test was given in t.o. to both groups of children, 49 (15 per cent) of the 318 i.t.a. children had not transferred to t.o. at the time of testing. It should be pointed out that these spelling results are incomplete and that the background information of the two groups in terms of intelligence, sex, and social class has not yet been determined.

In conclusion, although caution must be exercised in respect of the findings to date, the results of the i.t.a. experiment in Britain indicate that a fruitful line of inquiry has been found.

Gans, Roma. "I T A-- "Some Questions That Demand Answers," Grade Teacher, 82 (October, 1964), 35, 118.

An article which briefly describes the Initial Teaching Alphabet which has now been introduced into some local schools in Pennsylvania and Minnesota on a trial basis, and raises several questions regarding the desirability of certain aspects of the use of this new alphabet.

Roma Gans is Professor Emeritus, Teachers College, Columbia University.

Gans raises some pointed questions which do need to be answered before this alphabet is employed on a broad scale in initial reading instructions

Another plan for teaching beginners to read has flashed across the educational horizon. It is the Initial Teaching Alphabet (ITA), initiated in England by Sir James Pitman. It consists of an augmented Roman alphabet of 44 letters and 40 sounds.

The ITA program not only purports to instruct, but it also includes a plan for follow-up research, with records of its effects on later reading abilities and attitudes. However, there has not been enough time for a careful study of youngsters in the original experiments in England.

ITA was introduced in the United States as a workshop at Lehigh University in the summer of 1963. It is now being used in some local communities on a trial basis and in state projects in Pennsylvania and Minnesota. Plans for following the results are in progress and reports are available. According to plans, there will be follow-up measures and assessment, not only of the pupils progress in reading but also of their resultant behavior.

ITA is being presented as the latest guarantee that all children using this one plan, will become successful readers. But those who are enthusiastic about the method and are adopting it must recognize that ITA is not as yet based on research results.

One primary indictment of ITA is that it includes symbols that a beginning reader sees nowhere else in his surroundings. The 44 symbols are all consistent in their sounds, so spellings are sometimes strange. For instance, reeding for reading and wurk for work.

This means that many a youngster who can recognize a number of words and is already able to spell and write a few when he enters school is compelled to recognize words spelled differently from the accepted spelling. Any teacher of spelling knows the hardship on instructor and child to unlearn one way of spelling and to teach another.

The use of symbols which are alien to many children and the phonemic spelling of words, therefore, raise questions which must be satisfactorily answered before ITA is acclaimed as the way to teach beginners to read.

The following questions must be answered before complete approval is given: How are bright youngsters who have already gained facility in reading going to react in the long run to this approach? It will certainly inhibit already developed skills, and there will be a loss of time and energy if the child must start at the beginning to learn a system which he must discard when he reaches second- or third-grade achievement.

Enthusiasts for ITA claim that no children experience difficulty in shifting from the 44-symbol approach to the 26-letter reading. However, in a booklet, The Story of ITA, published by the Initial Teaching Alphabet Publications, Inc., this cautious statement is made: "Since the British experiment will extend over many years, it would be premature at this time to make definite claims for the success of Pitman's ITA."

What adjustments will accompany the shifting from one way of spelling to another demanded by this system? It will doubtlessly cause frustrations in many children. If the degree of frustration is great, it will certainly affect attitudes deeply.

Will ITA be a deterrent to an early interest in reading which we want to persist with our children and to persist into adulthood? This is important. Today's children are more sophisticated than those of a few decades ago. They grow bored with "schoolish stuff" at an earlier age. This is especially true for boys. The ITA system might fall into the "schoolish stuff" category.

How carefully will the teacher factor be considered in research? Enthusiasm has permeated classrooms where ITA replaced routine, less-enthusiastic teaching. Children catch the spirit and become more eager learners under its influence. Would children learn via any other method equally well, if it were taught with equal enthusiasm?

What about the respect for the differences of learning in individuals? ITA makes no provision for this; to the contrary, it is the same dose for all." Therefore ITA does not help the teacher to understand the varying learning abilities of children or urge her to do so. To the extent that it is an influence, ITA will serve only as another patent-medicine cure-all.

As an approach to reading, ITA is at its beginning. As yet there are not enough results from experimentation to warrant any of the extravagant claims being made. Only broad and longitudinal evaluation which yields reliable conclusions can determine its permanent place in the teaching of reading.

Gattegno, C. Words in Color: Background and Principles. Chicago: Learning Materials Inc., 1962.

A discussion of the Gattegno method which considers basic assumptions about learning to read and write, and the adaptation of this method to the English language, and presents an outline of the approach.

Caleb Gattegno is also the author of Numbers in Color, based on the Cuisenaire rods. He worked in Ethiopia on a special project for UNESCO in the teaching of Amharic, the official language of Ethiopia.

In the final section of this booklet Gattegno describes the basis for the application of his method in teaching reading, significant aspects of this method, and some tentative recommendations and conclusions:

Background of the adaptation of the method to English. Our approach to teaching writing and reading was inspired by considerations which often transcend the English language, and even all language learning.

Because we worked first on phonetic languages, we faced a manageable task. The successful transfer of the ideas that worked in one phonetic language to other phonetic languages enabled us to arrive at a tentative conclusion: the principles underlying the learning of reading and writing were largely independent of the structures concerned, i.e., the shape of the signs and the sounds of these particular languages. Naturally, each language to which we applied our method had its own problems and required adaptation of the principles which resulted in apparently different treatments for the first three phonetic (or quasi-phonetic) languages we studied. . . .

While the principles and ideas we had developed seemed to be flexible enough for successful adaptation to languages that were nearly phonetic, English and French appeared to pose quite different and most difficult problems that caused us to postpone their consideration. More importantly, we felt that the greatest good could be achieved by working on languages in those countries where illiteracy is much greater than in Europe or North America.

. . . Once we had recognized that the solution in each case was to eliminate insofar as possible the phonetic irregularities in each language, we realized that the same general approach could be applied to French and English. When we analyzed French and English from this standpoint, we discovered that the learning requirements for these two languages were not in fact so great as those for Ethiopian children, nor were they much greater than those of Indian children learning Hindi. Thus, English and French were less difficult than one language in which our methods had already proved successful and only slightly more difficult than another language in which our methods had also resulted in accelerated learning of reading and writing.

However, one serious stumbling block remained. To make English or French phonetic would require changes of spelling which would be opposed on the dual basis of tradition and practicality. Changes in spelling would require the rewriting and reprinting of all books or make them obsolete and undecipherable to new generations of learners. However, we were encouraged to seek a solution by our success with Amharic, where we could maintain the language as it was with its 251 characters of the Fidel, with only about 12 irregularities which could be made regular by alterations which would be barely noticeable in the script and would never be a hindrance with respect to the literature of the past. Further, by introducing the principle of dynamic learning situations, we made the 251 characters of the Fidel manageable, which led to the notion that we could increase materially the number of signs in English and French and still have a manageable learning task.

Accordingly, we started with the following approach:

- (a) English and French could have their own versions of the Ethiopian Fidel of over 250 characters of signs
- (b) Where it was not possible to distinguish among sounds by the shapes of the letters of the alphabet, color could provide the necessary distinctions.

In this text we have described how a reorganization of the English alphabet with a concomitant increase in the number of signs (by using colors) made possible the development for the English language of the equivalent of the Ethiopian Fidel.

. . . The role of the Phonic Code in our method. It is not suggested that the Phonic Code be memorized; it is merely a convenient way of listing the changes required to make English a quasi-phonetic language. It is also a synoptic table of the plan of our method, which is developed in detail in the accompanying texts.

Estimated learning time. If pupils were to learn the words on the Charts line by line, and if this required two lessons for each chart, we could calculate that in about 50 lessons pupils would have mastered with considerable certainty the intricacies of the reading and writing of English. But in fact there is no proportional law of learning time in operation here at all. Some lines require one lesson; others a few minutes; others, much longer. In any case, the length of time required for learning is a function of the individual learner. On the average, it is estimated that most adult learners can master

the reading and writing of English by this method in 20 to 25 lessons, and young learners in school can achieve mastery in 35 to 40 lessons, or in about 8 school weeks. These estimates are not important and are mainly based on our experience in teaching other languages. We have indicated approximate learning time only to persuade teachers to try our method, since the amount of time its failure might entail is relatively short.

. . . Some important aspects of the method. Several characteristics of the method seem worthy of emphasis:

(a) Each success in learning which the pupil achieves stimulates his affective cognitive powers and increases his subsequent rate of learning.

(b) Because this approach yields results at once and makes pupils aware of their own immediate achievement, there is no delay in stimulation the desire to learn and in obtaining the goodwill of the learner. He can see for himself that if he plays the game according to the rules, he gets dividends right away.

(c) Since the pupils practice immediately the words and sentences they meet, there is no need to mark time for drill. The pupils increase their powers by their sheer exercise and, more often than not, are able to go on to new exercises almost immediately.

(d) The morphological dimension of the method makes the teacher aware of shapes; the algebraic, or combinatorial, dimension makes the teacher aware of the pupil's horizontal progress, or mastery. Without telling the pupils about his awareness, the teacher by his teaching approach passes on to his pupils these same attitudes. Teachers can anticipate that their pupils will gain the same benefits from this awareness that their teachers acquire; perhaps even greater benefits since the children have not yet been spoiled by stress on drill and memory.

(e) A learner using our approach might be compared to a giant, with his mouth open in readiness for a supply of food placed in front of him. He advances toward the food, eats what he can, digests it, gets stronger as a result, eats more, gets stronger, and continues eating until all of the food has been eaten, digested and made part of his body. But this metaphor breaks down because we must begin by having food that is fully assimilable, and because we are concerned with learners' minds, not their bodies. Potentially, our pupils' minds are giant-sized. They bring to the task of learning to read and write an extensive speaking and listening knowledge of their native tongue. Their knowledge of speech may be compared to their aptitude for assimilating our material which has been prepared so as to be fully assimilable and is served to them at a rate that corresponds to their aptitude. Accordingly, we must adjust the prepared food to the hunger and the assimilating powers of our pupils. This does not mean slowing down the pace, or accelerating it, but adjusting it. Our guess is that, for the greatest majority of pupils, the rate of assimilation will be much more rapid than has been previously thought possible because there is no marking time and no waste of energy.

As a teacher, I do not teach. Since it is the pupils who must do the learning, I must let them do it. What does this amount to in practice: If we use the content of Part III of this text as an example, this means that, as soon as the pupils understand the approach to decoding and coding sounds, by going through as many of the first exercises as necessary, the teacher has a reduced part to play in the learning-teaching transaction. The teacher then has only to introduce new signs and sounds and suggest "combining" exercises by which the pupils create words and sentences. The teacher then dictates exercises to the students orally or merely by using the pointer.

In fact, dictation, as early as the progress of our pupils permits, is the ideal relationship between the teacher and his class. With dictation we remain within the area of knowledge of which the pupils are already masters-- speech-- and the pupils can solve individually the problem of the adequate combination of signs that will produce in reading and writing the sounds heard and retained in their minds.

. . . As soon as we feel that the pupils respond to dictation of simple phrases or sentences, the pupils and we together explore the possibilities of words, phrases, and sentences that have been mastered to this point. Creative writing of a combinatorial type follows. This activity is not the kind of creative writing advocated by many educators; it is an intellectual task that is an integral step in the process of forming a skill. We do not have sufficient evidence to indicate whether this writing by combining words helps or hinders spontaneous creative writing, but we do know that optimal conditions for creative writing require that reading and writing technicalities be overcome. This our method accomplishes systematically in a relatively short time.

. . . Words as units are movable in speech forms. In our approach pupils gain autonomy by learning to deal with words dynamically. Words become alive for pupils as they follow rules and have a certain freedom in manipulating the words they know and meet. The pupils learn that words can be drawn on a board, written on a piece of paper, printed on a page, or uttered. Regardless of the means of producing the words, the children realize that the words are still those that they themselves have composed or analyzed; or gained acquaintance with through their voices; or written with their arms, hands and fingers, to the best of their ability.

Children are so open to all reality they get great fun from any situations that provide new fields of experience, new vistas. If we play the game of having a number of words (all well known) written at random . . . on the board, or on paper, and find how to string them together in various ways to correspond to sentences, each heard and transcribed in its turn, we have discovered the very exciting multivalence of words. This is akin to increasing one's power far beyond the given to reach the possible. This is affective education, for, every time we feel our powers enhanced, they are in a very real sense enhanced. Reading and writing cease to be a mechanical end in themselves, but become an extension of one's own mental powers.

If reading and writing can do this, we have changed their role in the curriculum from necessary tools to be acquired for material ends alone, whatever the cost to one's happiness, to yet another means for developing each individual's intellectual capacity to the fullest. Indeed, we are no longer splitting our children's personalities. At present we force our children to acquire the skills of reading and writing without their really understanding why they should. We as teachers and adults know the benefits the children will gain from these skills, but children can have no real appreciation of these long-deferred advantages. If we can now make learning meaningful to the learners, because of the expansion of mental power that goes with it, and at the same time give it the same character as their play, reading and writing become part of children's growth all the time and are integrated and integrating, as play is.

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Each teacher will have to discover whether his pupils fare better with ruled or unruled paper. In my experience, it does not seem a help, at first, for

pupils to follow lines, but sometimes writers using unruled paper tend to let their words dwindle and curve, and to make letters of any size.

In our approach, pupils use pencils and therefore all letters have the same color; however, the distinctions among sounds by means of color remain in their minds. It is not the absolute value of the color that is operative. This suggests the possibility of using a few colors over and over again, provided that the same color does not reappear too soon and that mastery has been attained before one color is taken out of its previous context and used again. Children who can read their own writing, or words written on the chalkboard in white or in one color only, prove that they have attained the necessary mastery. In our experiments, children asked for colors to be used whenever they were unsure. When they were certain of the words, they did not mind if the words in the Phonic Code were monochrome like their own.

. . . It is desirable to bring the speed of reading up to the speed of normal speech as early as possible. To start with, pupils read slowly, finding out what the words are; and they can associate the correct sound for each word without yet gaining meaning from a whole sentence. However, almost from the start, our technique of dictation helps pupils to read more rapidly because full sentences are dictated and repeated by the class before the sentence is put down, in an effort to match speech and the code, word by word. Still, from the first lesson onward, teachers would be well advised to spend some time after each sentence has been written or deciphered word by word to see if the children understand the meaning of the sentence. The children thus become aware that writing is another form of speech. This awareness results in continuous, well-intonated reading. We very much hope that small children will cease to chant and to emit unnatural sounds in an effort to simulate their letters or words, as they unfortunately are so often led to do.

At the same time, speed of reading is not an aim to be pursued at all costs. Fast readers may pay for it by poor retention; slow readers by frustration. It seems that those who use their eyes only are fast readers but slide over some words unless they are very acute. Those who read by uttering each word are slow but do gain another dimension to their retention: the sound they make internally. I believe that with my method both reading speed and comprehension will be improved, since speech will improve as well as reading. Writing can never be very fast, and short-hand and recording and teletype machines represent solutions outside the school. In school our writing cannot even approach the speed of our thinking, and this constitutes a major human problem.

Rather than speed in reading, we would stress good enunciation, diction, and awareness of rhythm in English sentences. These qualities may slow the speech of some, but make it far more understandable. The rate at which English sentences are thus spoken might then be a reasonable goal for reading speed.

. . . In conclusion. In this text, stress has been placed on the fact that this approach reduces learning time, and estimates have been made as to the average time it should take to master the skills of reading and writing English. This saving of time has no great value per se. What may be important, however, is that the slowness of the present process of teaching these skills may be a source of boredom for many children. If our proposed accelerated program for reading and writing (which would match our accelerated program for mathematics) be a matter of opinion, a scientific investigation of the facts is required. Perhaps when more teachers are better acquainted with the approach proposed herein, the evidence for such an investigation will be forthcoming.

Hinman, Dorothea E. "Words in Color," in Current Approaches to Teaching Reading. NEA Elementary Instructional Service. Washington, D.C.: National Education Association, 1965.

A short description of the Gattegno method of teaching reading known as "Words in Color."

Dorothea E. Hinman is associated with Encyclopedia Britannica Press, publishers of Words in Color.

Hinman describes the approach originated by Gattegno in the following manner:

Words in Color was originated by educator Caleb Gattegno to teach reading in a new and direct way.

Dr. Gattegno's experimentation began in 1957 in Ethiopia for UNESCO. His approach has dramatically reduced learning time in Amharic, Spanish, Hindi, and English. In California in 1961, he demonstrated that children learn to read English in a few weeks (6 to 12). In May 1964 in Washington D.C., he demonstrated that only a few hours (9 to 20) of intensive work are required for adult illiterates.

The most important contribution of the approach is its full and rapid extension of the linguistic capacities of learners who already speak their language. The natural mental process of combining sounds and related meanings (spoken speech) is extended to include operations on related signs (written speech). The power of reading, writing, and spelling with meaning all language already owned as meaningful speech is developed as a unity. No one of these additional skills is worked upon separately. All come naturally and spontaneously as by-products of extended linguistic power. Teaching is fully subordinated to learning. The techniques and materials of the approach allow the teacher to initiate challenging and enjoying intellectual games which provide practice, without creating boredom through drill or strain through memorization, and to generate self-direction and creativity in the development and use of written language.

Color is far less important than the trade name indicates, since all books and written work from the beginning are in black and white. The use of color does solve quickly and easily the problems created by the ambiguous grapheme-phoneme relationship of English without affecting usual spelling: This on the wallcharts color provides a valuable clue and word imagery is more vivid. The many spellings of each sound occur in the same color, and the many sounds of one spelling occur each in a different color (each of the 47 sounds of English identified has its own color). Examples:

late, way, they, eight, straight, veil, great, pail
(same sound, so in same color).

pat, was, village, any, fatal, swamp, all, ate, care
(different sounds, so in different colors).

Words in Color opens the way for a valuable new type of educational research-- a study of people in the process of being aware of language.

Mazurkiewicz, Albert J. "Teaching Reading in America Using the Initial Teaching Alphabet," Elementary English, 41(November, 1964), 766-72

A description of an experimental demonstration of the use of the Initial Teaching Alphabet which has been termed the Lehigh-Bethlehem i/t/a Study, and a presentation of the tentative conclusions which may be drawn from this partially completed study.

Albert J. Mazurkiewicz is Associate Professor of Education at Lehigh University, Bethlehem, Pa.

In the following sections from this article Mazurkiewicz describes the organization of the Lehigh-Bethlehem i/t/a Study, and summarizes the tentative conclusions based on nine months experience in this three-year program of i/t/a evaluation:

John Downing's original oral and written reports to American educational bodies had indicated early in the British experiment that a decided difference in early reading ability could be achieved using Pitman's i/t/a. It was felt by many that we could predict from these early results that quite similar results would be obtained on completion of the experiment.

Whether this would happen or not, the new approach to an old problem excited the interest of many. Some people, it is true, believed that this new medium was at last The Panacea. Others, at the opposite extreme, felt that the medium was effective in England only because of circumstances, with the implication being that inadequate teaching generally existed because of a lack of interest in education the lower classes. Others, quite frankly, were unsure of their positions.

Building on the research findings of the English experiment with i/t/a and following a personal study of activities of teachers in England, a large-scale demonstration-evaluation experiment in Bethlehem, Pennsylvania became a reality.

Essentially this Lehigh-Bethlehem i/t/a Study is first a demonstration of the use of the Initial Teaching Alphabet in reading instruction and secondly an evaluation of its effectiveness. To accomplish both purposes the following were considerations:

A demonstration of the use of i/t/a should indicate how the new program could be phased into a school system, what problems needed to be overcome, and how these were solved.

An evaluation should have experimental and control populations which are identical in terms of a distribution of intelligence, readiness status, and socio-cultural backgrounds and followed for a period of at least three years.

To meet these purposes, some teacher volunteers for the first year of instruction were moved to new schools within the district to insure a geographical representation which included all social-cultural levels and represented rural, urban, white collar, professional, culturally deprived, Puerto Rican, Negro, etc. populations. Standardized tests of intelligence, readiness, personality were used in investigating the nature of the populations (CTMM, Lee-Clark Readiness, CPT).

It was determined that if one-third of the first-grade population were given instruction in reading using the new alphabet the first year, then two-thirds of the population could serve the the control population against which results could be measured. In the second year two-thirds of the new first-grade population would receive instruction using i/t/a/ while one-third would not, serving as the control population. The phasing-in demonstration aspect would

concomitantly be met in this procedure since 100 percent of the new population in the third year of the project would receive instruction using i/t/a.

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Within the limitations of this demonstration-evaluation study, tentative conclusions at this point in the three-year program of i/t/a/ evaluation are as follows:

1. Traditional spelling of English is a significant source of difficulty in beginning reading though not the only factor in reading retardation.
2. Children can learn to read more quickly (and with less observable frustration) when their beginning reading program is printed in i/t/a.
3. Children learn to encode sound to communicate through writing with a high degree of facility when taught using i/t/a. i/t/a/ seems to have a releasing effect on the child's ability to communicate through writing.
4. The first-grade classroom, according to teacher reports, is more easily controlled, fewer organizational problems occur, and more individualized teaching is accomplished within a grouping structure. These reports indicate that the child develops independent work habits much earlier than usual, appears to have better test-taking ability because of his improved work habits, has a greater capacity for work, and appears to be more self-motivated in learning situations.
5. Through the use of i/t/a the sentence structure and vocabulary of first-grade material can more closely approximate the vocabulary and sentence structure of the child at an early point in the first year of school. His wide interests can be more readily met in such reading material.
6. Reading performance by i/t/a taught children in t/o, post-transition, as measured by standardized tests in the ninth month is significantly better than that developed by children taught by similar procedures but in which the medium is t/o.
7. t/o spelling achievement, post-transition, for the i/t/a child in the ninth month of school is no different from that developed by children who used only t/o spellings. Much of this spelling is not consciously taught but is developed by teachers in i/t/a/ or t/o as part of a phonic or symbol-sound emphasis.
8. Confirmation of the earlier experimental findings in England, though using different materials and approaches, is suggested.

Pitman, Sir James. "Initial Teaching Alphabet," in Current Approaches to Teaching Reading. NEA Elementary Instructional Service. Washington, D.C.: National Education Association, 1965.

A brief description of the Initial Teaching Alphabet (ITA) and its intended use.

Sir James Pitman is a publisher in London, England and is the inventor of the Initial Teaching Alphabet.

Pitman stresses that ITA is a medium and not a method of reading instruction.

The Initial Teaching Alphabet (ITA) of 44 characters provides each major phoneme of English with its own symbol, thus eliminating the inconsistent character-to-symbol relationship in present spelling. This alphabet, with its spellings, provides the learner with a consistent alphabetic code. It differs from other phonemic alphabets in that both ITA and its spellings were designed to facilitate transition to the regular traditional alphabet, once reading and language fluency is achieved. Since it is a medium, not a method, ITA can be used with any method of reading instruction.

The 44-letter ITA alphabet consists of 24 standard, lower-case, roman letters (omitting "q" and "x"), plus 20 additional characters. Giving each character only one lower-case form and one sound value eliminates approximately 2,000 confusing irregularities of traditional spelling. The child is not confronted with three separate shapes, "A," "a," "æ," for a single letter and single sound. In ITA there is only one shape for capital, lower-case, or script letters; the difference is in size only. Each character always represents its own sound.

In traditional spelling the "i" sound is spelled differently in child, buy, try, eye, file, lie, high, aisle, island, guide, and in other words. This example is but one of many. The regularity of ITA and the more frequent repetition of the fewer syllabic forms enable the beginner to learn the mechanics of reading and writing more quickly, so that learning to read--in fact, a all learning--becomes, for him, a logical process.

The Initial Teaching Alphabet approach has been used for both beginning reading and remedial teaching in England since 1961 and in the United States since 1963, with wide application in both countries. In England, the United States, Canada, Australia, Africa, Israel, and the U.S.S.R., young and old demonstrate that they can make an effortless transfer from ITA to the traditional alphabet and its spellings.

Although ITA makes the reading process simpler, quicker, and more successful, the inventor never intended it to be a factor in the controversy concerning proper age of beginning to read. That decision must rest with educators.

III. SUPPLEMENTARY READING

Supplementary reading includes reading in a variety of types of books, magazines, newspapers, and other appropriate and authorized children's reading materials. The term "enrichment reading" is almost synonymous, but "supplementary reading" is slightly broader in scope. "Parallel reading" is a term which might be substituted for certain aspects of supplementary reading. Supplementary reading includes the reading of those textbooks which are termed "supplementary readers," but should not be limited by the reading material contained in these collections of stories for children. An easy way to define supplementary reading might be to state that it includes all types of reading other than that which is specifically designed for the sequential development of reading skills, or which is written primarily for the development of concepts related to one of the content areas of the curriculum. The definition of supplementary reading given by Tyler, in an article included in the selected references in this section, includes "reading for information" as one of three areas of supplementary reading. This article and the other articles in this section stress the importance of this type of reading and offer practical suggestions for helping children to enrich their lives while they extend and further develop reading skills through enjoyable reading activities.

Bierbaum, Margaret L. "Individualized Approach to Enrichment Reading," Grade Teacher, 81 (November, 1963), 85-86 +

A description of a program of supplementary reading which contains a number of practical suggestions for stimulating varied and enriched reading activities.

Margaret L. Bierbaum is a teacher in the Burr Farms School, Westport, Conn.

In the following paragraphs from this article Bierbaum indicates the relationship of enrichment reading to other aspects of the reading program, and describes some techniques she has used to motivate effective reading in this area:

Enrichment reading takes different forms in a classroom. First, most teachers guide their classes through a basal reading program. Although in recent years there has been a hue and cry about the "lock step" of a basal approach, teachers seem to agree that there is no better way to develop the reading skills necessary to each grade level. They feel that it is also the most feasible way to insure a consistent development of the child's vocabulary.

Along with the basal program, teachers usually embark upon a phase of enrichment reading. This part of the program has been given increasing attention in the last several years. Some schools today have fairly well-stocked libraries. Students also bring books in from home or borrow them from the public library. In any case, the student is encouraged to provide himself with a worthwhile book, on his own reading level, for the periodic library periods.

Enrichment reading can also grow out of a particular subject in which the children become interested. Last year I read the story of Pandora to the class. Discussion of different aspects of the story led to the reading by the children of other Greek and Roman myths, the rugged Norse legends, ending up with accounts of our own American mythological heroes.

The program continued at a high level of interest, throughout the year. Children would meet me in the hall clutching some new collection of myths they had unearthed. (Parenthetically, Doubleday's "Book of Mythology" by the d'Aulaires is the best I have found on the subject.)

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The crux of our program is the fact that, to a large extent, the child selects his own book. A teacher might carefully suggest to the child who is reading nothing but horse stories that there is a particularly interesting book, for example, on rocks (a subject which she knows interests him, since at the beginning of the year, he filled out an interest inventory).

There is another way to help the child realize that there are many types of books and some selections under each category are sure to appeal to him. In my room I have a file box with each child's name on a divider. On this card also appear the eight categories: fiction, historical fiction, science fact, science fiction, biography, humor and animal stories. As he completes a book, he fills out a card. On this appears the name of the book, author, date finished, the identification of some of the important characters, a sentence or two about the plot, a few new words he has added to his vocabulary from the book (together with their meanings) and the sharing activity he plans for the book. The card is filed behind the divider and the category of the book is checked, thereby giving the teacher a quick and convenient check of his reading record.

On the day set aside for individualized reading, we start off the period with everyone reading. During this time, I hold a series of conferences with individual students. We discuss the book they are currently engrossed in, the results of the latest reading diagnostic tests, and I point out strengths and weaknesses that have appeared. The children seem to profit from this one-to-one relationship.

We close the individualized reading period with "sharing" activities. These can take various forms. The student may select a particularly interesting passage for oral reading. He may exhibit an original book jacket, a poster or an illustration. He might choose to be a "salesman" and "sell" the book. He sometimes conducts a question and answer period or a "to-tell-the-truth" panel. I teach in what is known as a high socio-economic area, so this experience may be unique, but last spring one of my students "shared" a factual book on horses by having someone ride her own horse to school. She took small groups out to view her well-behaved mare while she discussed points covered in the book -- probably the ultimate in sharing activities. The children seem to enjoy these periods as it gives them a chance to use their sometimes latent creative abilities and they (and I) become acquainted with a multiplicity of books.

A balanced diet in the child's reading taste (from the fourth grade up) can also be achieved by assigning a book report each month -- the teacher assigning a different category each time. Since I do not believe that simple summaries suffice, I prefer thought-provoking questions closely related to the type of book assigned and therefore have devised a form to fit each classification. Besides the aforementioned categories I use, there is an eighth group I call "old favorites." If you refer to these books as "classics," the children seem to resist them. Besides, there is probably no list of books that every child ought to read. I remember disliking "Alice in Wonderland" and wondering why, as I had been assured it was a classic.

Hawthorne, although verbose, appealed to me much more.

Reading all the selections for this special Book Week section has been a heartwarming experience. As teachers know, books are the real world where children grow, where they live, where their sense of justice and right are developed and, most important, where their ideals are formed. It is hard for adults to realize just how deeply their own characters were formed by their first encounter with Cinderella descending from the coach in iridescent splendor, Robin Hood's sturdy arm drawing back his bow in Sherwood Forest and little Mowgli, seated in the wolf pack listening to old Baloo the bear declare "There is no harm in a man's cub. Let Mowgli run with the pack!"

Larrick, Nancy. "Making Books Come Alive for Children," in Readings on Reading Instruction, pp. 346-349, Albert J. Harris (ed.). New York: David McKay, 1963.

An article on stimulating interest in supplementary reading of books which stresses the change in children's reading interests toward reading which is increasingly like that which appeals to adults.

Nancy Larrick is an author and editor. She resides in Quakertown, Pennsylvania.

Larrick offers a number of practical tips on motivating reading of children's books, and relates her suggestions to books she specifically recommends.

When a three-year-old brings you a book to read, don't be surprised if it is about a submarine rescue or a man-made satellite. These are hot subjects today, even with the very young; and adults had better take heed.

If you would make books come alive for a child, I know of no better way to begin than with the child. He is alive. His interests and concerns will make the book come to life for him. Oddly enough, many an adult tries to make books come alive for a child by beginning with his own childhood interests. Frequently they lead to a dismal let-down.

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Mass media bombard the modern home with world news. Technical terms are brought from their old hideout in the laboratory to become the language of the general public, including children. Nowadays children's interests are often as adult as their vocabulary. If you have any doubts, check the toy counter of the nearest five-and-ten. You will see space ships and submarines but few teddy bears and baby dolls. The little red wagon has almost faded away.

Librarians report growing demand for children's books about outer space and underwater exploration. Some first-graders are rejecting cowboy stories as too babyish. Instead, they are asking for books about electricity and radiation. Fifth- and sixth-graders often turn to adult books as more appealing than those written for young readers. The Diary of Anne Frank and Thirty Seconds over Tokyo are favorites with this age level.

.....
When a child is given the opportunity to choose the book he will read, he begins to see things in a different light. This is what he has done all his life with television.

It is the procedure approved by the big, exciting grown-up world outside of school.

If each child is to have a choice, there must be many books from which to select: easy books for the slow reader; more advanced books for the better reader; baseball books; fairy tales; biographies; books about jet planes and outer space, about the moon and deep-sea diving. There must be fiction and non-fiction, poetry and prose.

Unless a child has been used to selecting books for himself, he will need some guidance. He may resent guidance of the "see-see-read-read" variety. But he will welcome guidance that is as straightforward as a newscaster's report.

The third-grader who follows the world series is a natural for How Baseball Began in Brooklyn, by LeGrand. His sister, a horse fan, will thank you for a steer to Misty of Chincoteague, by Marguerite Henry or Little Vic, by Doris Gates. Space enthusiasts of all ages will be eager to know about You Will Go to the Moon, by Mae and Ira Freeman; A Book of Satellites for You, by Franklyn Branley; and that delightful bit of spoofing, Miss Pickerell Goes to Mars, by Ellen MacGregor.

A book comes alive when it is in the hands of an interested reader. When an interest is already astir in the child, all you have to do is help him find the book which will kindle that interest further. That is the easiest kind of guidance.

To make it even simpler, there are numerous book lists which group favorite children's books by subject and age level. By using the index in the book list and reading the annotations, you have some guidelines by which to aid children in selecting books. Soon fourth- and fifth-graders will be consulting the same book lists when they choose books. Today's children like self-service, even in books.

Beyond this, it is important to introduce children to new interests and to open new vistas which will lead to books. This is where the fun begins -- the challenge, if you will -- for a child's adventures into new kinds of books and new kinds of subjects depend in large part on the introduction he gets from adults.

A printed list of recommended books won't do it. Certainly, required reading selected by adults won't do it -- not today, when children are accustomed to the spoken word of radio and television, to hearing enthusiastic, firsthand reports of world affairs and commercial products.

Take a tip from TV and make your introduction of a new book just as vital, just as personal. First read the book yourself; reread it if there's been a time lapse, letting yourself bask in its humor or pathos or whimsy.

Then while you are still aglow with it, read a chapter or two to children. Your delight in the book will show in the way you read it, and children will sense your enthusiasm. Soon they will want to be a part of it and ask for more.

Some of the real gems of children's literature need this kind of read-aloud introduction. Tell a ten-year-old that Charlotte's Webb, by E. B. White, is about a talking spider, and he may shy away. But read aloud part of that remarkable book, and Charlotte will have another devotee.

The interest and sympathy in your voice and the magic of Charlotte's personality will do the trick.

The Borrowers, by Mary Norton, and Half Magic, by Edward Eager, profit from the same kind of introduction. Indeed, any book does. Read aloud a few chapters of a book you have already read and are sold on, and a listener's indifference is likely to vanish.

This is true for poetry, too. But you will have to read and reread before you meet your audience. The misreading of poetry can be as discordant as a soloist off key, and a dull listless voice will deaden interest from the start.

If your children have not been reading poetry, begin with something light, even humorous. Fourth- and fifth-graders love "The Tale of Custard the Dragon," by Ogden Nash. The Golden Treasury of Poetry, selected by Louis Untermeyer, and Time for Poetry, edited by Mary Hill Arbuthnot, are excellent collections of poetry for all ages. Poems to Read to the Very Young, selected by Josette Frank, is just right for preschoolers.

Remember, too, that children today are used to seeing as well as hearing, so share the pictures as you read. In Charlotte's Webb, Garth Williams' pictures of Wilbur the pig are irresistible. Even the most hard-bitten fifth-grade missile expert will soften before Wilbur's contented smile as he stands under Charlotte's Webb. . . .

Read I had a little . . . the next time you have guests to dinner, and I think you will find they are as charmed as the children. Or read a chapter from Charlotte's Webb to some of your contemporaries, and watch the reaction. These books have a quality that appeals to young and old alike. They have a subtlety, a sophistication if you wish, that lifts them above any grade-level label.

Watch for this as you search for books to introduce to today's children. Before you bring a book to a class, give it the read-aloud test. If it flows rhythmically to your adult ears, the chances are it will appeal to readers attune to adult oral-language media. If it speaks in the straightforward manner accorded grownups, children will be pleased.

If you are intrigued by the information in a book of nonfiction or glowing with satisfaction over a book of fiction, you can be sure that most children will do likewise.

Sartain, Harry W. "The Place of Individualized Reading in a Well-Planned Program," Ginn and Company Contributions in Reading, No. 28. Boston: Ginn, 1961.

A monograph which defines individualized reading and discusses difficulties in a wholly individualized program, experimental evidence on individualized reading, adding individualized reading to the basic program, and organizing combined programs.

Harry W. Sartain is Director of the Laboratory School, University of Pittsburgh.

Sartain presents several possibilities for organizing combined programs of basal and independent reading:

The procedure for dividing instructional time between basal and independent reading will depend upon the wishes of each teacher and the needs of the pupils. A few possibilities are:

Individualized Supplementary Reading

This is the procedure that has been referred to in most of the preceding paragraphs. It is easily managed in both primary and later grades. The basic lessons are taught in small groups. The individualized reading proceeds continuously whenever children are not working on basic assignments. While the teacher is engaged with one group, the others will complete workbook requirements and then spend all remaining time on independent reading. The teacher can relate the sharing activities to language instruction in order to schedule more time. Frequently the "telling time" periods that begin the day can be devoted to telling about books in the interesting ways mentioned earlier. A few brief individual conferences should be scheduled daily in place of the time the teacher would otherwise spend in explaining and correcting needless seat work. Supplementary individualized reading can be added to all of the additional plans that are suggested.

Alternating Basic and Individual Reading Periods

In primary grades most teachers have long periods for reading instruction twice during the day. In some classrooms the books used in the morning are different from those used in the afternoon. Basic and individualized work can be combined easily by scheduling the sequential skills work in the morning and the self-selected reading during the afternoon period. This is probably the simplest way for the teacher to make a first attempt at individualized reading.

Periodic Reinforcement of Basic Skills with Individualized Reading

At any grade level a group may alternate a few weeks of study in the basic materials with extended periods of individualized reading. In this situation the teacher will keep a group in basic books and workbooks while a new phase of skill building is being introduced. Before the next skill or set of skills is presented, the children may put aside the basic materials and spend a few days or weeks practicing the new skill through individualized reading. Such an organization insures sequential learning and gives specific direction to the instructional emphasis in each phase of the individualized program. In each room some of the groups will be engaged in basal reading while others are reading self-selected materials. Because the skills have already been introduced, the individual conferences can be quite brief, allowing the teacher time to work effectively with the other children in basal groups.

The less capable children should spend a smaller proportion of time on independent than on basic work. One experiment with ten second-grade classes revealed that slower pupils make appreciably less progress when they do not receive direct instruction daily. The plan of alternating extended basic reading with individualized work can be especially well adapted to the needs of slow pupils. Since the reading program of each group is different, the teacher can give slow groups fewer weeks of individualized work without calling this to the attention of other children. Thus the less capable pupils can spend most of their time on sound skills development, which will help them to feel more comfortable in all classroom study situations.

The periodic reinforcement plan is probably the easiest for a teacher who has never scheduled independent reading before. Individualized reading can be undertaken with only the most able group while the teacher tries out varied techniques of conferring and record keeping. As one feels secure with

the procedures, he can apply them to other groups.

Completion of a Basic Program Before Beginning Individualized Reading

Here each group completes the basic program in its assigned series before the end of the year. The reading periods for the remainder of the year are spent in self-selected reading and individual conferences. Again the brightest children, who complete a basic program fastest, will spend the most time in individual work. This is commendable because they are capable of profiting from self-directed study. Some schools encourage the most able groups to move beyond their grade levels in the basic books. In this case the teacher must judge the point at which the introduction of new skills should cease in favor of more individual practice. Slower children should still have the privilege of independent supplementary reading as a part of their seat work.

Basic and Individualized Study Combined in the Topical Reading Unit

This is the most complex way to produce this combination, but teachers who have practiced it for several years find the plan to be particularly rewarding. Progress through the basic readers is paced in such a way that two or more groups, preferably the whole class, are reading on approximately the same theme. Examples of such topics are "Imaginative Tales," "Children of Other Lands," or "Stories of Heroes."

Together the pupils and the teacher plan a project which will require extensive independent reading on the topic. The project may be a set of puppet shows, a museum, a radio broadcast, or a program for parents. The children search through all of the room and building library materials to obtain every bit of available information. To aid each other, they evaluate materials; they build a class bibliography; they keep records; and they organize material for sharing. In the process they practice many of the work-study skills that have been introduced.

This instructional organization is especially recommended for the intermediate and upper grades because of the content of their readers. Also there is more possibility of children's being sensitive about grouping as they get older. Under the topical unit plan they work in groups only two or three times a week. The other periods are spent in planning, sharing, and activity work which cuts across group membership.

Tyler, Tracy F., Jr. "On Supplementary Reading," Journal of Developmental Reading, 6 (Summer, 1963), 260-65.

An article which defines the scope of supplementary reading and outlines the development of various reading skills which need to be developed in this part of the reading program.

Tracy F. Tyler, Jr. is with the Robbinsdale Public Schools, Robbinsdale, Minnesota.

Tyler stresses the importance of the supplementary reading program in refining and further developing reading skills introduced in the basal reading program.

What is often overlooked is the application and extension of the skills and abilities that are taught as a part of the basal reading program. This application and extension might be called, in the broad sense of the word, the supplementary reading program. Simply stated, this encompasses all reading done outside the basal program including the three general types of reading that we are ordinarily called upon to perform: reading for information,

reading for entertainment, and reading for information and entertainment. As teachers we have an obligation to give guidance, judgment, and motivation to all of this reading. This is a tremendously responsible task, for as we use the tool of reading we are carrying forward into all endeavors an attempt to improve the very basic underlay of our entire educational purpose.

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Of the two main emphases of the basal program (development in word recognition and in interpretation) the teaching done with recognition skills is usually sufficient for retention -- provided practice is offered through supplementary reading. With interpretation the teaching done through the basal program is only a beginning. These thinking skills must be continually stressed and refined in a variety of situations. In the elementary school there are at least four general approaches to follow which are achieved through

- 1) the use of supplementary readers within the framework of the reading lesson,
- 2) the means of the reading done in any and all of the content areas (e.g., science, spelling, social studies, arithmetic, etc.),
- 3) library reading,
- 4) units of work, projects, and activities carried on as a part of or in combination of the above areas.

The principles that apply as a part of any good teaching-learning situation apply equally as we extend the thinking skills into these four areas. These principles are

- 1) background development,
- 2) vocabulary presentation,
- 3) setting of purposes,
- 4) reading activity,
- 5) discussion and/or use of what has been read or done, in terms of the original purposes set.

With the setting and procedure in mind the next consideration is the content and its implementation. The thinking skills about which we are concerned may well be those interpretive skills included in the basic reading program. The teacher at any level should be eminently acquainted with these skills not only at this particular level but at lower and higher levels. These should be carefully examined, and strengths and weaknesses of classroom groupings compared with these skills and with the lessons in the four avenues of supplementary reading so that it is known what can be emphasized for any group or the entire class in any particular supplementary area. Unless this is done the raison d'etre for much attention to supplementary reading ceases to exist. Unfortunately, this kind of approach to learning is not the easiest one for a teacher to take. Considerable planning in each of these four avenues is necessary, and the teacher must continually be considering not only the knowledge that this lesson is designed to impart but also the processes by which the children meet and assimilate this knowledge. This is the very heart of what is meant by supplementary reading, and it is clearly evident that reading as a tool can make every youngster work towards independence in learning.

An important element of this idea is the varying degree of success which a youngster may attain in interpretive (thinking) development. In the elementary school this probably closely follows the achievement groups by which reading instruction is typically carried forth. All youngsters can develop competence here but the teacher has the obligation to adjust emphasis and depth according to ability. The usual achievement levels and their brief characteristics are these:

- 1) Low achievement groupings -- these include youngsters who need considerable time to master the basic reading skills, especially word recognition skills and whose interpretation of material read is limited.
- 2) Average achievement groupings -- these include our "typical" students. The majority of our "usual" instructional and classroom materials are directed toward these students and they outnumber the other two general classes of youngsters. They are capable of adequate mastery of both classes of skills and of a certain depth of interpretation.
- 3) High achievement groupings -- these include roughly the upper 25% of our students and at the top are found the truly gifted. In varying degrees this class should be capable of quick mastery of basic skills and should be quickly ready for and capable of profiting from extensive development in thinking skills.

It is important that the teacher recognize the limitations and strengths of the youngsters, and these classifications may have value in this regard. The child's success with reading will to a great extent determine how far we may go with him in the development of interpretation. And the teacher has already made an analysis of reading achievement for the purposes of basal reading instruction. Hence, these groupings should suggest the particular emphasis and depth to be made for particular children. Related to these levels, the teacher must then provide appropriate materials, activities, and experiences and a level of personal approach in line with the groupings. Examples may suffice to make this clear.

- dramatization or pantomining of a story
- making a picture of a different ending to a story

In the directing of questions related to the story in the basal reader, the teacher has a choice of the level of question dependent upon the group. For the low achievement youngster such questions will generally deal with factual material from the story itself with an attempt to bring out the "why" of events if at all possible. For average achievement youngsters, such discussion will usually deal with factual material but also some attention can be given to recognizing motives, making inferences, etc. For more capable youngsters the discussion will almost entirely revolve around the higher interpretative skills with little or no attention to the who-did-what type of query. In the supplementary program the same general procedure may be followed. The supplementary reader assignments can easily be differentiated as to difficulty and the entire approach altered as we deal with different levels of material. We thus have two basic ways of adjusting our approach: through the level of discussion and/or activity that we carry on with a given piece of material, and through the kinds and levels of material that we use.

Two things remain to be done at this point: the first is to give some indication of what is meant by interpretative skills. This is of value so that we may better be able to give direction to our guidance in the elementary school. The second task is to outline some suggestions that may have value in each of the four avenues of supplementary reading.

There is no agreement about the components of interpretation, but the everyday teaching situation demands that we have some suggestion as to what is generally considered basic to this area. Harris' breakdown of these skills (within the framework of our three major types of reading: reading for information, entertainment, and information and entertainment) serves as a useful basis for our thinking. He cites

- 1) locational skills,
- 2) application of comprehension skills, e.g., accurate following of directions,
- 3) selection skills,
- 4) organizational skills,
- 5) recreational skills.

Each of these can be broken down into specifics. This is necessary if we are to pinpoint the guidance that we give through reading. This specificity must be formulated by the teacher. We have suggested that agreement is lacking as to exact components even though there is some unanimity as to general classifications. Therefore, the index of skills accompanying the basal reading series used for developmental instruction is an excellent on-the-spot source for the specific skills to develop through the supplementary reading program. Or the teacher may go to the literature and evolve her own list. The former is especially desirable since there will be no lack of agreement between basic and supplementary instructional emphases within the same school setting.

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It is realized that teachers are doing a great many of the things outlined here as a matter of course in their classroom day. The important thing at this point may be in pointing out that these are all related to reading and that there is a very definite emphasis in virtually everything that we do in school on reading, specifically in the obligation we have to do some teaching of interpretative (thinking) skills in all these areas. The school is much more than a medium for the passing on of a great body of knowledge to a new generation. It is, instead, the major medium for the guidance of the individual so that he may become proficient in thinking about the things that he meets in his school work. If we can run a strong strand of thinking development through all that we do in the classroom and see these efforts take fruit in the subsequent teaching that we do, then we know that we have arrived. Reading, then, is more than just a basal program.

Zentgraf, Faith M. "Promoting Independent Reading by Retarded Readers," Reading Teacher, 17 (November, 1963), 100-101.

A report on a system used by a reading teacher to encourage independent reading by pupils, which includes an easily administered and evaluated check on comprehension.

Faith M. Zentgraf is a teacher in the reading center at the A. E. Burdick School in the public school system of Milwaukee, Wisconsin.

The approach employed by Zentgraf which is described in the following paragraphs appear to provide an effective means for encouraging wide and thorough reading of library-type books. The use of the common chart which indicates the amount of satisfactory outside reading can be questioned in terms of the emphasis it places on comparing the achievement of pupils with one another. Other motivational procedures,

such as individual charts of progress, might be employed instead.

Getting the retarded reader to do wide reading is a problem that both challenges and plagues the reading teacher. Our reading center has over one hundred "high interest-easy readability" books that are accessible at all times. Formerly, the books were rarely read, for these children had known reading as a humiliating and disastrous experience. Poor readers are not going to do extra reading for extra humiliation.

In our school the pupils of grades four through eight report to the reading center for a half hour each day. The period is divided into a three-minute timed reading test, word attack work, and assigned reading for comprehension. This scheme does not leave time for library reading during the period or for lengthy checks on the child's understanding of what he has read. Some check on comprehension is necessary, but the common methods have serious drawbacks for retarded readers.

Oral reporting takes time and does not always reveal sufficient comprehension. Questioning the reviewer in front of the group may embarrass him if he has not fully read or understood the book -- another block to further reading.

Detailed written reports inhibit extra reading. In effect, they penalize the reader.

Brief book reports tell nothing about the book and encourage "picture reading" and deception.

Most of the books were "real good" books, to quote the occasional comment of a child. The problem became a two-fold challenge -- to find a way to get the children to read the books voluntarily and then to check comprehension by a method that was acceptable to both reader and teacher.

Questions written on an index card and inserted into the pocket of the book with the take-out card became the answer to the problem of wide reading in our center. A controlled vocabulary comparable to that of the book is used in the questions. Some of the questions are of the simple recall type; others require thoughtful rereading, use of generalizations, and judgment. The children are encouraged to read the questions before reading the book. Thus the reading becomes purposeful, and the reader is able to anticipate the action. As the child flips back through the pages for possible answers, he becomes more efficient at skimming and looking for key words. The children are encouraged to ask their parents for help. It is more fun to discuss possible answers with someone.

The books were chosen to insure successful reading with a minimum of effort. A child is encouraged to return a book without reading it if he begins the book and finds that he does not like it, or that it is too difficult. These children are now reading an average of three outside books a week. Most important, they are committed to reading for pleasure.

A chart listing the names of all of the children is tacked upon the bulletin board. Five or ten points are awarded for each book read, with the questions correctly answered. The ten-point books are more difficult, are usually longer than a hundred pages, have fewer pictures, and have more difficult questions. At the end of each month the points are totaled and the names of the winners are posted.

The answers are checked and the scores are posted daily, while the child is in the reading center, so reward is immediate. No reports are returned to be done over because of untidiness or poor spelling. Only when an answer shows that the child did not understand a concept is the child asked to discuss it.

These retarded readers feel that they have a real reason for doing extra reading. They are able to achieve success with a minimum of effort, and the chart shows them their daily progress. They are becoming aware of the joy of reading.

IV. READING IN THE CONTENT AREAS

Reading skills which have been developed in the systematic developmental phase of the reading program are applied in reading for information in various content subjects. Because different content areas require specific reading skills it is important that these skills be developed in relation to the particular content area. Special attention must be given to overcoming the problem related to the more difficult vocabulary used in reading materials in the various subject-matter fields. Pupils need to learn to adapt their reading to the subject being studied so that an appropriate type of reading is employed. Various aspects of reading in the content areas are considered in the selected references in this section. They include an assessment of reading needs in the content areas, the various skills which need to be developed, the different types of reading used in reading content materials, and suggestions related to reading in various content subjects.

Bamman, Henry A. "Developing Reading Through Mathematics and Science," in Reading as an Intellectual Activity, pp. 110-112. International Reading Association Conference Proceedings. J. Allen Figurel (ed.). New York: Scholastic Magazines, 1963.

A discussion of some of the difficulties involved in reading in the subjects of mathematics and science with suggestions regarding determining difficulties developing vocabulary, reading for comprehension, rate of reading, and the use of diversified materials and activities.

Henry A. Bamman is Professor of Education at Sacramento State College.

Bamman points out the difficulties in reading in mathematics and science and suggests ways of making reading in these content areas more effective.

Children and youth in all levels of American schools are being encouraged today to include in their programs of study an increasing emphasis upon science and mathematics. This emphasis has arisen partially because of the strong public interest engendered by modern nuclear discoveries and space developments and partially because of the shortage of personnel for positions in science and mathematics. We have made great strides in developing modern curricula for these two important areas; however, teachers everywhere are increasingly concerned with the lack of reading competencies of young people in both science and mathematics. Despite a strengthening of programs for developing basic reading skills, observable in most schools of our nation, we have made little progress in training teachers to teach specific reading skills for the content areas.

There are several reasons why reading in science and mathematics is more difficult than the reading in which the child normally engages during the first three or four years of his school life. The materials which we use for the teaching of fundamental skills is usually narrative in nature, and the young reader becomes accustomed to description, plot, characterizations, and definite patterns of sentence and paragraph construction.

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It would be both foolish and impractical to point out the difficulties of reading in content areas unless we could suggest means of improving the instruction in our classrooms. A beginning may be made by assessing the difficulties which our students have in either of the areas of science or mathematics.

Early in the school year the teacher should take inventory of the study and reading skills of the students, as well as ascertain the various students' backgrounds in the content areas. Standardized tests, informal tests and checklists, and discussions may reveal what students' reading and study habits are, what vocabulary has already been developed, and which areas of the curriculum have particular appeal. Further, the teacher should observe the reading of his students in the textbook and watch for obvious signs of difficulties in word attack skills, vocabulary, comprehension skills, and study skills.

Students who are suspected of having difficulty with basic skills should receive additional instruction during the regular reading period; it is not impractical to suggest that much of that instruction should be given through the use of science and mathematics books, rather than the regular developmental reading books. For students in junior and senior high schools, the Be A Better Reader texts provide excellent practice materials for developing skills in reading in science and mathematics.

The vocabulary of science and mathematics is often much more specific, more descriptive, than vocabulary found in other content areas. However, the greatest difficulty in learning such specific terminology seems to lie in the inability of many students to apply a term to a process, a classification, or a broad concept. Many words need special attention, since they take on new and different meanings when used in science or mathematics.

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An integral part of reading for science and mathematics is the interpretation of problems, preceded by precise, methodical reading. The student must learn that almost every word is crucial to complete understanding of a problem or a process. Recognizing all the words, applying their specific meanings to the problem at hand, and sensing the relationships among the several conditions which are presented by the problem are prerequisites to actual problem-solving.

Careful questioning by the teacher may determine which students are grasping main ideas and essential details; some students are incapable of seeing relationships among the main ideas and need careful guidance in determining the main ideas and their supporting details. Students benefit from opportunities to restate main ideas in their own words and to state essential sequences of ideas. Listening and speaking become an integral part of good reading when the teacher involves the student in stating clearly and succinctly the ideas that have been encountered in reading.

So many of our students have been made aware of the necessity for reading rapidly. The amount of reading to be done in each day's work is increasing with each generation, and the availability of a wide variety of supplementary materials for each content area has emphasized the necessity for selecting wisely, skimming, and reading intensively. The student who reads science and mathematics must be prepared to make adjustments to the basic materials, both in terms of his speed of reading and his purpose for reading the material.

Reading in these content areas is often slow, deliberate reading. Skimming is seldom applicable as a skill, except in searching for related ideas. Directions must be read and reread, with attention directed toward the sequence of those directions and exactly what is demanded by each. Fortunately, many of the concepts of science and mathematics are both observable and demonstrable; many of the ideas are precise and easy to relate to laws and principles.

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Classroom teachers are certainly aware that our textbooks are not appropriate for all of the students in a class. This problem is compounded at higher levels of education, particularly in the junior and senior high schools, where the use of a single text is prevalent in science and mathematics classes, and where the range of reading abilities of the students may range all the way from third-reader level to the level of a mature adult.

Fortunately, the unit or project plan of teaching makes possible the diversity of materials, both in terms of interests and reading abilities of the students. A textbook is less essential when a broad unit is developed. However, in mathematics we are constantly confronted with the problem of a single textbook and virtually no supplementary reading materials. As a result, we must diversify the activities in terms of the abilities of the students. Oral reading of problems, discussions of problems, and numerous teaching aids are necessary if we are to involve all students in solving the problem at hand. Recent developments in materials for the teaching of mathematics have incorporated the use of multisensory approaches to learning.

Teachers and students in science and mathematics classes are involved in two vital processes: the development of knowledge of specific content, and the development of skills for lifelong acquisition of knowledge.

Janes, Edith. "Assessing the Reading Needs of Students in the Content Areas," in Reading As An Intellectual Activity, pp. 97-100. International Reading Association Conference Proceedings. J. Allen Figurel (ed.). New York: Scholastic Magazines, 1963

A report which considers the use of standardized tests, observations, informal inventories, and interviews as means of assessing the reading needs of pupils in the content areas.

Edith Janes is with the Gary Public Schools, Indiana.

Janes describes the use of standardized tests, observations, and informal interviews, and offers a number of practical suggestions regarding the latter technique in the following statements from this report:

The knowledge of the range of abilities and reading achievements of the pupils in a class enables the teacher to plan instruction intelligently, to make provisions for individual differences, to select appropriate materials, and to provide a continuous check on pupil progress.

Able teachers determine needs of their pupils by assembling information from standardized tests, cumulative records, informal tests, observations, and interviews.

Reliable standardized tests are available to evaluate reading achievement or to assess needs in various content areas. A test which measures the skills which it purports to measure should be selected. Professional books by reading and content area authorities contain recommended lists of tests. Examination of a sample of the test should be made before placing school orders.

The cumulative or permanent record of a student often yields pertinent information about his academic progress, his attendance, his general health, and his family background.

Results of standardized tests and information on cumulative records should be readily available to classroom teachers. Teachers should remember that:

1. Scores on standardized reading tests are usually one level above the pupil's instructional level. Therefore a pupil scoring 5.2 on a reliable reading test should probably receive instruction in a fourth-grade book.
2. Changes in pupils' reading levels have occurred during the time following the last recorded scores.

The alert teacher observes pupils at work, records noticed weaknesses, and plans activities to overcome them. Pupils with such problems as lip movements, finger pointing, inadequate rate and comprehension skills, and poor study habits are easily identified for specific help.

During the first weeks of school, teachers use informal devices to estimate each pupil's instructional level quickly. An informal word recognition inventory may be prepared from several graded texts in reading or in content areas. This vocabulary test may include ten to 15 words from primary-grade texts and 20 to 25 words from upper-grade texts. These words may be presented for flash recognition by the teacher's manipulation of two small cards in such a way that words are exposed singly in rapid succession.

The grade level at which the pupil misses more than one word may be considered his tentative instructional level and may be used as a guide for assigning books in reading or content area classes. It may also be used as the starting place for administering an individual informal reading inventory.

A group informal reading inventory provides a rapid survey to find the instructional reading levels of individual pupils. Sets of books ordinarily used in the classroom may be used to test general ability and achievement.

A teacher may administer an informal silent reading inventory to find the instructional level of each pupil:

1. By asking pupils to read silently a selected story near the front of their reading texts.
2. By checking comprehension through pupils' written response to questions based on the story. (Include fact questions, inference questions, vocabulary questions, and summary questions.)
3. By asking those pupils who answered all questions correctly to read a similar selection in the next harder book in the series.

4. By asking those pupils who answered less than 75 per cent of the questions correctly to read a similar selection from a book one grade easier in the same series.

The grade level at which the pupil can answer 75 per cent of the questions correctly may be regarded as his instructional level. This would indicate the grade level of text that should be used for instruction.

An informal oral reading inventory may be administered using the same format. Pupils in small groups or individually may read a short selection aloud and answer the questions orally. Pupils should be able to pronounce correctly 95 percent of the words in material at his instructional level. Only in testing situations are pupils asked to read orally at sight.

A pupil's independent reading level is normally one grade below his instructional level. Books read for pleasure should be at this independent level or easier so that pupils can enjoy the story without encountering the frustration of new and difficult words.

Most educators believe that a child's innate ability is reflected in his capacity for understanding what he hears. They believe that if he can hear and understand an eighth-grade story, he can read an eighth-grade story if his skills function at that level.

When I.Q. scores are not available, many teachers administer group listening ability tests, sometimes called hearing capacity tests. While they are probably less accurate for high school pupils than elementary pupils, listening tests do aid teachers to identify pupils with average, below-average, and above-average ability.

A teacher may administer a group listening ability test to find the hearing capacity of each pupil:

1. By reading to the pupils a story at their grade level. (For example, fifth-grade pupils would hear a fifth-grade story first, then harder or easier selections as indicated by pupils' responses.)
2. By checking comprehension through written response to questions based on the story. (Include fact questions, inference questions, vocabulary questions, and summary questions.)

The grade level at which the pupil can answer 75 per cent of the questions correctly, may be regarded as his hearing capacity or listening ability. By comparing a pupil's hearing capacity grade level with his actual grade level the teacher perceives a fairly accurate indication of whether the child's innate ability is average, above-average, or below-average for his age.

Classroom teachers may identify poor readers with average and above-average ability by careful observation. The following types may be able pupils needing reading instruction:

1. Pupils who can discuss intelligently what is read to them and what they see or experience, but who cannot read a lesson and understand it.
2. Pupils whose Language I.Q. on intelligence tests is much lower than his Non-Language I.Q.
3. Pupils whose Actual Score on Arithmetic Reasoning is much lower than his score on Arithmetic Fundamentals. This may indicate that he is not able to read the reasoning problems but has the mental ability to solve the problems if he could read them.

In our school system, classroom teachers use informal inventories prepared from material in the basic readers. Our special reading teachers have constructed two forms, based on another series for use in our reading improvement classes.

Teachers in content areas may prefer to use published material for their initial, tentative evaluation. Lists of valid tests easily administered include the following tests:

1. Austin, M. C., Bush, C. L., and Huebner, M. H. Reading Evaluation. New York: Ronald Press, 1961, pp. 235-246. (Grades 1-8)
2. Gilmore, J. V. Gilmore Oral Reading Test. Chicago: World Book Company, 1952. Forms A, B (Grades 1-8)
3. McCall, William A. and Crabbs, Lelah Mae. Standard Test Lessons in Reading. New York: Teachers College, 1961. Books A, B, C, D, E (Grades 2-12)
4. Smith, Nila B. Grades Selections for Informal Reading. New York: New York University Press, 1959. (Grades 1-3)

Gray and Reese state that "Reading in the basic reader constitutes an easier task for children than reading in the content fields. Various important factors are controlled in the basic reader which cannot be similarly controlled in books dealing with subject-matter content. For example: vocabulary in the content field is usually more difficult; new terms are introduced faster and with fewer repetitions; more facts are presented to the reader; greater retention is expected; and references to previous facts occur with more frequency in historical, geographical and other such materials."

Certainly the content area teacher needs to check each pupil's ability:

1. To master the specialized vocabulary of the subject by efficient use of such aids as context clues and structural analysis.
2. To do the kinds of reading required in the subject such as the problem solving approach in mathematics and science.
3. To perform the specialized reading tasks required in the subject, such as the reading of maps, charts, and resource material.

Content area teachers will learn much about each pupil's ability to read the text by preparing tests based on its material. The class should be told the purpose of the informal tests and understand that the results will not affect their class grades. Teaching may be combined with diagnosing as the answers are discussed with the class.

In planning for assessing pupil needs in reading a specific text, the content area teacher should first list the major reading skills necessary for the subject. Each day for several weeks one section of the daily assignment may be used as an informal test. Such tests would provide a check on background for the subject and on such skills as:

1. Ability to recognize context clues
2. Understanding of concepts and new words developed in previous grades
3. Ability to use the vocabulary correctly
4. Ability to use parts of the book
5. Ability to read the material orally
6. Ability to identify main ideas and supporting details
7. Ability to perform other specialized reading tasks, identified by the teacher as necessary for efficient reading of subject area material

Teachers' guides accompanying content area texts usually contain good suggestions for assessing needs of pupils. Smith provides word lists and vocabulary exercises in specific areas.

A check of specialized vocabulary words learned in the subject during the previous year enables the teacher to plan more effective instruction. For example, a list of social studies words and concepts used in informal testing for a beginning sixth grade would include such words as island, peninsula, and plateau. Pupils who make many mistakes will need specific instruction to develop a meaningful vocabulary. Pupils who understand the concepts taught in previous years can progress more rapidly and can study more independently.

Lodge, William J. "Reading and the Content Subjects," Ginn and Company Contributions in Reading, No. 17. Boston: Ginn, 1961.

A discussion of the skills and abilities needed for functional reading with suggestions for developing these skills in relation to specific curriculum areas.

William J. Lodge is Deputy Superintendent, Curriculum and Guidance, Culver City Unified School District, Culver City, California.

Lodge stresses the need for refining and adapting skills in each reading situation to the purpose of the reading.

The statement that all teachers should be teachers of reading is as true today as it always has been. Our schools are still essentially reading schools, with reading of various types running through the entire school day. If we look at life itself, we find, in spite of the large attention given to radio and television, that reading is still of great importance, and that in many fields such as science and government more complex skills than ever before are required.

Our concern here is with functional reading as distinguished from developmental and recreational reading. Teachers should never lose sight of the fact that these three types of reading are not mutually exclusive but interrelated, often closely so. All, in well-balanced proportions, are part of a modern reading program, but functional reading pertains especially to the use of reading in both in-school and out-of-school activities. It includes the study and interpretation of all the textbooks and reference books which the pupil uses.

This article discusses the basic reading skills necessary for successful reading in the content subjects, suggests how they may be developed, and examines a few of the particular problems involved in content reading.

Every teacher knows that there are differences in the reading materials in science, arithmetic, the social studies, and literature. Materials vary not only in purpose, difficulty, compactness and kinds of ideas, continuity of presentation, and vocabulary, but also in relation to the nature or logic of the subject and the methods of teaching it. For example, in the reading of arithmetic and some science materials, the child is asked to abandon temporarily his acquired habit of reading continuously and smoothly and instead to read in smaller units with frequent pauses to answer questions placed in the text. The reading of some social-studies materials-- geography, for example-- is probably closer to the type of reading required by arithmetic and science

than it is to that demanded by story content in a basic reader.

Despite the differences there is probably more that is similar than dissimilar in the various kinds of reading materials. Moreover, many of the skills and abilities needed in the content subjects are the same as those used in any reading activity except that they are refined and specialized. There are, in addition, however, a number of study skills which are essential to success. Developing these study skills is a must in the basic reading program itself if the child is to get off to a good start in reading in the content field. Consequently, a series of carefully planned and executed work-type reading activities are needed to lay the proper foundation.

Many of these skills and abilities have their beginnings in the primary program. For example, first-grade children may learn to use a simplified table of contents, to find the main idea of a sentence, or to follow directions contained in a simple single sentence. Later these children learn to use longer tables of contents, possibly with subheadings as well as headings; to find the main idea of a paragraph or larger section; to follow more complex directions having to do with construction activities, directions for playing games, and other activities.

The intermediate program represents an extension of the skills and techniques of the primary years rather than something distinctly different. As Russell has pointed out on page 358 in Children Learn to Read, "... In the primary grades reading does not vary greatly in different situations, but from the third or fourth grade upward it must be considered as a complex process composed of a number of very different activities." Materials used in the intermediate and the upper grades are more mature and more widely varied than are those of the primary years. Skills become more refined and are adapted more appropriately to each reading situation, that is, the subject being studied and the purpose of the reading.

There are several major abilities needed for work-type reading. These have been listed by Russell in Children Learn to Read as follows:

1. Ability to define a specific purpose for reading
2. Skill in locating information
 - a. Skill in using the table of contents
 - b. Skill in using the index
 - c. Skill in using the dictionary or glossary
 - d. Skill in using an encyclopedia
 - e. Skill in using a card file and other library tools
 - f. Skill in using maps, graphs, charts, and tables
 - g. Skill in using pictures
 - h. Skill in skimming
 - i. Skill in using headings and other typographical aids
3. Ability to comprehend and organize what is read
 - a. Ability to find the main idea
 - b. Ability to see the sequence of ideas
 - c. Ability to find details
 - d. Ability to draw conclusions, see relationships, and make inferences
4. Ability to select and evaluate information
 - a. Ability to select suitable sources of information
 - b. Ability to distinguish between relevant and irrelevant, important and unimportant information
 - c. Ability to recognize the difference between fact and opinion
 - d. Ability to judge the validity of one's information

- e. Ability to use several sources to solve a problem
- f. Ability to judge the adequacy of one's information
- 5. Ability to adjust the method and rate of reading to one's purpose and to the nature of the material
- 6. Skill in using information
 - a. Skill in following directions
 - b. Skill in taking notes
 - c. Skill in classification
 - d. Skill in outlining
 - e. Skill in summarizing
- 7. Ability to remember what is read
 - a. Ability to use the aids to retention
 - b. Ability to select facts to be remembered

These specific study skills need to be carefully taught and practiced as pupils progress through the grades. Few, if any, children acquire them by osmosis or by sudden brilliant flashes of insight. In teaching these skills there is no substitute for careful teacher planning, both long-range and day-by-day. This planning must provide a wide range of materials that children can read successfully under guidance. The teacher must build background for understanding and help each child recall the ideas and experiences that will aid him in interpreting what he reads. Vocabulary problems should be anticipated so that adequate meanings can be developed. Both teacher and children must evaluate continuously, and both must be aware that specific progress is being made. Only in these ways can children develop their own purposes for reading, which is the key that opens the door to success.

Smith, Nila Banton. "Reading in Subject Matter Fields," Educational Leadership, 22 (March, 1965), 382-385.

A presentation of suggestions regarding the improvement of reading in the content subjects of social studies, science, mathematics, and literature in relation to current problems.

Nila Banton Smith is Distinguished Service Professor, Glassboro State College, New Jersey, and a past president of the International Reading Association.

These excerpts give some of the ideas of Professor Smith regarding the importance of reading in the content subjects at the current time, as well as specific suggestions for reading instruction in several of the content areas:

"The present social revolution and reading in the subject matter fields are mutually interactive. This revolution is ushering in new problems; reading is necessary in coping adequately with these problems. The kind of reading, however, that will contribute to problem solution is not the kind that is done in pursuing sensational magazines, comic books, and news items on crime and casualty. It is the kind of reading used in delving deeply into social studies, science, mathematics and literature. We have a social, a political and a cultural responsibility in teaching children to read effectively in these fields.

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The cause and effect pattern of writing is characteristic of social studies content. Every event in history, every geographical change in the earth has had its cause which in turn has resulted in an effect. It is helpful to

students if they are taught to identify this pattern when they encounter it. They may then read for the specific purpose of noting causes and effects, thus having an organizing platform on which to stand while gathering related information.

Specialized vocabulary is a significant factor in reading science material. The new words are long, difficult to pronounce and technical in concept. For teachers working with poor readers, it is suggested that they take a hint from procedures used in teaching reader stories, that is, to clear the way for study of new science content by providing vocabulary work before the students read, both in regard to pronunciation and meanings.

The reading of most problems in mathematics involves four different processes: (a) reading the entire problem to grasp the situation as a whole; (b) concentrating on the question or statement at the end that asks or tells what to find; (c) deciding what process or formulas to use in finding the answer; (d) pulling out the number facts or symbols presented for use in working the problem. After these reading activities accompanied with a high degree of reasoning have been completed, then the student is ready to compute the problem mentally or on paper. If a student is having difficulty in mathematics it would be helpful to explain to him the importance of reading activities which precede computation, and to provide him with special practice on the reading procedures involved, perhaps for a time without working the problems at all.

Interest in reading is the touchstone to all reading activities which contribute to our lives culturally, socially, informatively and recreationally. Development of interest in reading is of grave import at this time because of the competition of other mass communication agencies, and because of the present unsatisfactory status in the free reading both of students and adults. Literature is a content area which offers an excellent opportunity to develop interest in reading and discrimination in the choice of content.

Whipple, Gertrude. "Essential Types of Reading in the Content Fields," in Improvement of Reading Through Classroom Practice, pp. 31-34. International Reading Association Proceedings of the Annual Convention. Newark, Delaware: The Association, 1964.

A report which discusses the appropriate use of different types of reading in meeting the objectives of learning in the content subjects.

Gertrude W. Whipple is Assistant Director, Department of Language Education, Detroit Public Schools Center. Formerly she was Associate Professor of education in Wayne State University; and still earlier, a member of the elementary curriculum department of the Los Angeles City Schools.

This report stresses that the teacher first have a knowledge of the structure of the particular school subject and select the most effective method of teaching, utilizing appropriate types of reading.

Successful guidance of content reading is impossible unless the teacher has a knowledge of the structure of the particular school subject. He must know the specific concepts and generalizations to be promoted in that subject.

For example, a description of Switzerland in an elementary geography is not intended to teach the industrial and other processes described, but rather to promote the principle that a people living in a country with few natural resources can make a good living by importing raw materials and exporting finished articles. New England is another region that exemplifies this general principle. Detailed facts are quickly forgotten; but knowledge of the fundamental principle can aid the pupils in reconstructing the details and in interpreting life in other areas that show similar man-land relationships.

Another requirement for good reading instruction is that reading be used as a medium of learning only when it is the most effective method of achieving the teaching purpose. Obviously, if some other medium such as taking a trip or viewing a film would be more productive, reading ought not to be used. A further requirement is that the book employed should be the right one for the particular pupils; if they have low comprehension, the time spent in reading an inappropriate book will be excessive.

Let us now turn to the question: What are the most fruitful types of reading to attain the objectives of the content subjects?

Oral reading has limited value as a means of learning, for the rate of oral reading is less rapid than the rate of silent reading. And yet a common practice consists of having children take turns reading aloud from their textbooks. Under this slow oral method the listeners tend to view the content as bits of specific, detailed information rather than to grasp the broad ideas.

Some types of oral reading, however, can function in the curricular areas: pooling pertinent information on a topic from newspapers, magazines, pamphlets, and books; reading orally to prove or disprove statements; giving others instructions, directions, or announcements; combining oral reading with speaking or speaking from notes; and oral practice for participation in a play, a radio program, or a dramatic dialogue. Oral reading has special value in teaching the semi-technical words and phrases in that it tends to increase the reader's experience in using the words and the listener's experience in hearing them spoken.

The teacher's main problem in guiding oral reading is to motivate it and to develop standards of accurate reading, effective emphasis, and ability to convey meaning and feeling to the listeners.

Silent reading is especially useful in the content areas. The types may be classified on the basis of speed of reading and the kind of thinking involved. The most rapid type is skimming; that is, the reader glides quickly over the text without reading it carefully.

A reader uses such scanning chiefly for locational and survey purposes. He hunts up topics in an index, words in a dictionary, articles in an encyclopedia, or maps in an atlas. He may look for certain words on a page such as references to animals, or mountains, or for information in answer to a question. He uses survey skimming in examining a chapter to see its general organization and what sections, if any, apply to a given problem. Or he may skim a chapter for review purposes.

Since skimming saves much time and energy, children should be taught to use this technique when it is appropriate. They must learn to keep in mind just what they are skimming for. In the early learning stage, children often revert to continuous reading at their customary rates.

Cursory reading occurs when one reads as rapidly as he can to get an overview of a selection or the main ideas. He skips over difficult words and minor points, but he does read in more detail than when skimming. Cursory reading is especially important when the reader must deal with a lengthy selection preparatory to careful reading.

Other uses of cursory reading are: to comprehend simple directions for an experiment; to review ideas to be used in a dramatization, a report, or a discussion; to check one's memory or ideas; to formulate questions to be asked of others or to be answered by careful reading; and to sample books to see if one wants to spend time reading them.

In view of the large amount of material that the well-informed adult must read today, it is imperative that children increase their speed of reading through practice in cursory reading.

Assimilative reading means abstracting what the author has to say. This kind of reading is concerned with literal meaning and does not go below the surface to implied meanings. Unlike cursory reading, assimilative reading is not hasty or neglectful of details.

The child may carry on cursory reading to get facts or to follow explicit directions for an experiment or a do-it-yourself project or to find out what travel folders say about a foreign country. The teacher may use the facts and literal meanings in developing thinking abilities through discussion.

The teacher's main problem in developing assimilative reading ability is to discourage attempts at rote memory. It should be impressed upon the children that repeating the words without understanding is of little or no value. The teacher should show the children how to test themselves for the recall of ideas.

Critical reading is the slowest kind of reading because it is reflective. As described by Sterl Artley, critical reading "is an active process of reflecting with care on the ideas expressed, of making a rigidly exacting analysis and, as a result, arriving at a valid conclusion." This, the slowest and most difficult type of reading, requires freedom from personal bias and a background of experience against which new ideas can be evaluated.

There are many situations that call for critical reading. In social studies, pupils need to compare the points of view in one editorial with those expressed on the same topic in other editorials; to analyze historical material to see the connection between events so that they can draw inferences; to solve simple problems by assembling pertinent facts, classifying and comparing them, and reaching reasonable conclusions in light of the facts. In perusing literature, pupils should interpret the motives and emotional reactions of characters in order to understand their behavior.

Unless the teacher helps children to develop a critical attitude toward what they read, they are not likely to do so. If the teacher asks them to read to the bottom of a certain page in a history book or to complete the next chapter in a science text, they will do little else than superficial reading.

If the teacher's questions tend to call chiefly for facts, children will not engage in reflective thought. They need help in formulating reading purposes that demand critical reading within their abilities. Such purposes stress the how and why of events as opposed to the who, what and when.

To advance children toward maturity in reading in the content fields, the following points deserve consideration in instruction: (1) Reading should be used only when it is the most effective medium for the purpose. (2) Real reading is idea-centered rather than fact-centered. (3) Real reading can be promoted only if the teacher has a knowledge of the structure of the subject. (4) Various kinds of reading ought to be used to further the goals of the content subjects, as opposed to one or a few patterns of reading.

V. READING DISABILITY

Reading disability may appear in different degrees, from slight retardation to total inability to perceive written symbols. Discussed in the selected references contained in this section are the diagnosis of reading disabilities, consideration of the long term effect of remedial reading instruction, and some principles of remedial instruction for dyslexia, or inability to read.

Because of the current interest in the work of Delacato, several references concerned with his theory of the treatment of reading disability have been included.

Barlow, Bruce. "The Long-Term Effect of Remedial Reading Instruction," Reading Teacher, 18 (April, 1965), 581-86.

A review of five studies on the effectiveness of short-term and long-term remedial instruction in clinical and public school programs; and also a summary of three investigations which provide evidence on the effect of intensive remedial instruction for the severely disabled reader.

Bruce Barlow is Associate Professor of Educational Psychology at the University of Minnesota. He is director of the Psycho-Educational Clinic and project director of a training program for the teachers of emotionally disturbed and socially maladjusted children.

The following sections of Bruce Barlow's article summarizes research on the effectiveness of remedial reading instruction on the disabled and severely disabled reader. The research on the severely disabled reader indicates a chronic condition needing long-term treatment rather than the intense short-term work program typically offered.

These findings are consistent with previously reported research in supporting the effectiveness of remedial instruction for disabled readers. They extend the evidence in support of remedial effectiveness to include the very severely disabled pupil who is referred to a university clinic after years of failure, at about sixth grade age and functioning in reading at second grade level.

The unfortunate but highly instructive element of these findings is that severe reading disability is not corrected by short-term intensive courses of treatment, even though it is ameliorated by such help. Neither, it would appear, is the cure to be found in intensive treatment followed by maintenance sessions of an hour or so per week, although again such a program is

far superior to no special help at all. The implication which follows naturally from these conclusions is that severe reading disability is probably best considered a relatively chronic illness needing long-term treatment rather than the short course typically organized in current programs.

Bryant, Dale N. "Some Principles of Remedial Instruction for Dyslexia." Reading Teacher, 18 (April, 1965), 567-72.

A discussion of the application of five learning principles which may serve as a partial framework on which an instructional program of effective remediation for pupils with specific, severe disability in word recognition (dyslexia) can be built.

Dale N. Bryant is on the staff of the Study Center for Learning Disabilities, State University of New York at Albany Medical College.

Dale N. Bryant indicates that children with dyslexia can learn to read but only when appropriate procedures are used. Some instructional procedures developed by the author in greater detail below are: (1) a focusing on the simplest reading elements; (2) an overlearning of responses until they are habitual or automatic; and (3) a modification of the learning task which will allow the child to be correct in nearly all his responses whether made aloud or to himself.

Specific severe disability in word recognition (dyslexia) is usually resistant to standard remedial procedures. . . . Dyslexia cases can learn to read, but only if the teacher recognizes the nature and extent of the child's difficulties and uses procedures appropriate for dealing with those difficulties. . . . The points outlined below represent an application of learning principles to the specific disabilities found in working with several hundred reading disability cases.

Principle 1. Remediation should initially focus on the simplest, most basic perceptual -- associational elements in reading: perception of details within the Gestalt of words and association of sounds with the perceived word elements.

Principle 2. Perceptual and associational responses should be overlearned until they are automatic.

Principle 3. The remedial teacher should plan the learning experience and modify the presentation of the task and material on the basis of the child's performance so that the child is correct in nearly all of his responses, regardless of whether they are made aloud or to himself.

Principle 4. When two discriminations or associations are mutually interfering, the following steps should be taken consecutively: (1) one of the discriminations or associations should be learned to an automatic level; (2) the second should then be learned to an automatic level; (3) the first should be briefly reviewed; (4) the two should be integrated, starting with tasks where only the difference between the two need to be perceived; and, finally, (5) in graduated steps both should be made automatic when the task requires discriminations and associations in addition to the mutually interfering ones.

Principle 5. There should be frequent reviews of basic perceptual, associational and blending skills, and as rapidly as possible these reviews should involve actual reading.

. . . "Within the scope of the principles outlined for work with dyslexic cases many procedures can be used effectively -- and finding new techniques should be a creative challenge to the teacher."

Delacato, Carl. "The Ontogeny of Reading Problems." Claremont Reading Conference. Twenty-seventh Yearbook, pp. 119-25. Claremont, Calif.: Claremont Graduate School, 1963.

An article which describes the basis for Delacato's theory regarding the development of functional neurological organization.

Carl Delacato is Director, Institute of Language Disability, Philadelphia.

The following paragraphs from this article by Delacato give the main elements of the theoretical framework which is the basis for the "treatment" of reading disability which he advocates:

In a few short years from birth the child has moved from being one-sided to being two-sided: binocularly, binaurally and bilaterally, to being stereophonic, having developed stereopsis, having developed stereagnosis and now must move on to the final human level, that of developing or superimposing upon this developmental continuum cortical hemispheric dominance. Here is where man is unique in neurological terms. Man is the only creature who has developed one hemisphere which is dominant over the other hemisphere. As a result, man is the only creature who has a symbolic language.

As a child begins to make early choices of sidedness, the culture must give him opportunities to reinforce this sidedness so that he develops complete unilaterality, which results in one-sidedness for handedness, footedness and eyedness. As he develops complete one-sidedness, he can begin the process of becoming completely human in terms of his receptive and expressive abilities.

This sequential continuum, called neurological organization, ends at about the age of 6, or at about the age when we generally begin to teach reading formally. To recapitulate, the whole process of development of readiness to read begins at birth. It goes on to the level of Pons, which functions in an alternating one-sidedness, to the level of mid-brain, which is two-sidedness, to the level of cortex, which encompasses stereo functions, to the level of the development of complete cortical hemispheric dominance. This continuum forms the basis of human perceptual abilities.

Perception is a fundamental process. We learn to see in varying stages and in varying ways; we learn to move in varying stages and varying ways; we learn to hear in varying stages and varying ways; we learn to feel in varying stages and varying ways. There are no short cuts to these developmental processes in any of the sensory modalities, sequentially, logically and according to the development of the human nervous system. Only by going through the process as nature meant it to be can we form good perceptual abilities.

Superimposed upon the development of perceptual abilities are the apperceptions which we build from our experiences which, in turn, result in conceptualization and the ultimate in reading, which is human conceptual comprehension. The ability to learn to read, the ability to learn to express oneself starts from birth on. If one is not afforded the opportunity to develop this total neurological organization, he cannot become totally human, and as a result, cannot communicate at the level at which he might have been able to had his neurological organization been complete.

To diagnose our language problems, therefore, we must start at the age at which we first see the child, but we must look back developmentally to the original area of dysfunction. As a result, it may be that in terms of diagnosis, some of our children are not well developed at the level of Pons, some at the level of mid-brain, some at the level of cortex and some at the level of cortical hemispheric dominance. If we are to diagnose validly and reliably, we must go through each succeeding stage to assess the mastery of function at each stage.

Treatment must also follow this sequence. In treatment we must go back to the original point of departure from developmental norms and we must re-create for that brain level and that chronological level those functions so that the child can go through the proper developmental stages and begin to move on to the establishment of complete neurological organization. In treatment, therefore, we must start at the lowest level at which there appears to be a lack of neurological organization and we must give the child the opportunity to master the activities and functions of that level and of each succeeding level until we have mastered complete cortical hemispheric dominance.

Based on the rationale of neurological organization, prevention of communication dysfunction is very possible. It must be based, however, on the premise that there are significant developmental stages of neurological organization which cannot be bypassed, and as the child reaches each stage chronologically he must be given every opportunity to master the functional neurological activities at that level before moving on to the next. With such a logical approach to child education we could, in the future, become able to prevent the problems which face us in education today by seeing that every child is given opportunity to develop wholly and completely in terms of functional neurological organization.

Harris, Albert J. "The Diagnosis of Reading Disabilities," in Readings on Reading Instruction, pp. 129-33, Albert J. Harris (ed.). New York: David McKay, 1963.

An article based on a conference report which defines several terms related to reading disability, and answers the major questions regarding diagnostic procedures for pupils with reading disabilities.

Albert J. Harris is Director of the Educational Clinic and Professor of Education, Queens College of the City University of New York, Flushing, New York.

Harris reduces some of the special terms of medical specialists regarding reading disabilities to straightforward language, and then outlines the basic elements of the diagnostic process.

Sometimes names that we use to label certain things or objects or events are very impressive, but when we look more carefully into the meaning we find that the label does not really tell us any more than a much simpler term would convey. Medical specialists, for example, have devised quite a number of special terms to describe difficulties in learning to read. For example, the term alexia simply means inability to read. This can be subdivided into acquired alexia (loss of ability to read as a result of damage to the brain), congenital alexia (the person has never been able to read), or developmental alexia (the person has not developed any reading ability). Another favorite medical term is dyslexia, which simply means that there is something wrong with the person's reading. The term strephosymbolia simply means twisted symbols, or in other words, the individual has a reversal tendency.

The term diagnosis also seems formidable to some teachers. It is derived from Greek roots which mean "to know through" or "to know thoroughly." Taking this word out of the medical setting and applying it educationally, it refers to what is really a straightforward process. When we are diagnosing a difficulty, what we want to do is to find out what is wrong, what caused it, and what can be done for it. That is what diagnosis means as applied to reading disability.

Continuing the effort to explain diagnosis in plain and simple English, we may regard the diagnostic process as one that consists of asking five kinds of questions. These questions are summarized by the well-known little words: who, what, where, how, and why.

The first of these, who, means: who are the children who need special help? All children whose reading seems to be significantly below grade level need some special attention. Within this large group, usually consisting of one-quarter to one-third of all the children, we have to make some differentiations. We need to distinguish, first of all, between those whose reading problem is just one aspect of generally slow mental development and those who have the potentiality of making considerable improvement. The generally slow child, who is usually reading close to his mental ability level and sometimes manages to read somewhat above it, does not need a remedial program, but rather a total curriculum which is adapted to his limited learning abilities. He needs to be recognized and appreciated for doing the best that he can, and relieved of the pressure of trying desperately and vainly to come up to the normal group. The other children, who are below both the standards for age and grade and their general level of intellectual functioning, are children with reading disabilities, ranging from slight to severe.

Children who have slight to moderate reading disabilities are generally able to be helped considerably by the classroom teacher, working with them either in groups and helping them in the areas of their greatest difficulty, or providing them with some highly individualized help in the general classroom setting. The remainder, the severely disabled readers, need a much more careful diagnostic study and need to be given remedial help individually or in quite small groups, and usually outside of the classroom setting.

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The second question, what, asks: at what level can the child read? In answering this question, we find that teachers and school administrators tend to place too much reliance on the scores obtained from standardized reading tests. While average and good readers tend to get most of their scores on such tests by actually reading and answering the questions, the scores of poor readers are often based largely on guess-work and so they frequently over-estimate the level at which the child can really read. Standardized reading tests are very good instruments for comparing groups and for measuring rate of progress of groups. They are somewhat less satisfactory as measures of the status or progress of an individual child.

Increasing emphasis has been given in the past few years to the actual try-out of a child in a book to see if the book fits him. Usually we try to distinguish between the instructional level, at which the child can read fairly well when given instructional assistance of the usual sort, and the independent level, at which he can read for pleasure and without any assistance. Determining these levels for the disabled reader is extremely important, since we find over and over again that one of the reasons that certain

children do not improve is that the materials with which they are being taught are just too hard for them.

With disabled readers, it is unsafe to rely on silent reading alone. It is necessary to listen to the child's unrehearsed oral reading in material of varying levels of difficulty, and to test his sight vocabulary and word analysis skills.

The next question, where, is an inquiry into the specific reading skill or skills that are central to the child's difficulties with reading. For example, let us assume that a sixth-grade child scores at fourth-grade level in a standardized silent reading test. Presumably his reading comprehension is quite inferior. But if we test his word recognition skills, we find that they are even more limited, since he has a small sight vocabulary and cannot read many words of greater than second-grade difficulty. Under these conditions, it seems evident that the word recognition problem is more central than the comprehension problem, or, in other words, he cannot understand the material primarily because there are too many words that he cannot recognize. The special help that he would need would have to concentrate more on word recognition skills than on comprehension. Similarly, many children who are very slow readers are slow readers because they have to hesitate and pause to puzzle out words, and again the central difficulty would not be the rate problem but rather a word recognition problem.

The next question, how, signifies: how does the child proceed in reading? What is he trying to do? What goes on in his mind? Here we can ask a number of questions, all of which are highly significant.

First, how does he attack words? Does he read only the words that he knows and wait to be told the others, or does he make some effort to figure them out? If so, does he try to sound words letter by letter, or by phonograms, or does he try spelling the word, or some other technique? In order to be able to answer these questions it is helpful to try the child on words presented individually rather than in continuous material, because some children have become such expert guessers that many of their shortcomings in word recognition pass unnoticed when they are allowed to guess from context. Furthermore, it is very helpful, when the child does not recognize the word immediately, to ask him to do his thinking out loud so that you can find out what he is trying to do and why it works or doesn't work. This is perhaps the most helpful single technique in reading diagnosis that I know. Sometimes more can be learned by listening to a child as he tries to figure out two or three words that can be gained from hours of other kinds of testing, in terms of providing insight and understanding about the child's difficulties.

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A third area of inquiry is, how does the child feel about reading? Many children who have difficulties in reading approach printed material with fear and trepidation. They may anticipate that they will make many mistakes and that somebody will laugh at them. They assume it is going to be difficult and frustrating. If this is true about a child, then obviously helping him to change these feelings to more constructive ones would have to become a major objective in trying to help him. Answers to this kind of question are sometimes not easy to obtain, but once the child trusts you he will very frequently be able to tell you frankly just how he does feel about reading.

A fourth area of inquiry is, how does the child respond to instructional help? Does he seem indifferent, resistive, passively accepting, or gratefully enthusiastic? If he is already enthusiastic, perhaps one can concentrate on what to teach him; but if he displays very little responsiveness, perhaps major attention will have to be given to motivation for a considerable length of time, and skills development may have to be kept at a minor level of importance. It is desirable to inquire not only into his response to instruction in general, but whether he responds differently to different kinds of activities or different kinds of material. Sometimes finding a book that appeals greatly to a child's special interest may provide a magic key to getting him started. Sometimes a child who is a slow learner with one method of instruction may respond ever so much faster to a different method. Experimental try-out of a variety of materials and a variety of teaching approaches may play a very important and practical part in the total diagnostic program.

The final question, why, is an attempt to get to the heart of causation. The causation of reading difficulties is very complex and frequently there are more causal handicaps for a particular child than we need in order to account for the difficulties that he is experiencing. Sometimes even in an intensive study by a group of specialists in a clinic it is difficult to do more than conjecture as to what the causes really were when the difficulty started several years ago. Nevertheless, the effort to find out what causal handicaps have interfered with the child's learning is very worthwhile, and even if we do not find full and complete answers, we often discover contributing factors or handicaps about which something can be done.

It would be a mistake to assume that it is always necessary to understand the causes in order to help the condition. From a practical standpoint, it is useful to make a diagnostic distinction only when there is a difference in treatment involved. For example, if there are half dozen kinds of organisms that can cause a sore throat and they can all be treated with the same antibiotic, a sensible physician does not bother to make laboratory tests to decide which particular organism is the cause this time. Instead, he prescribes the antibiotic and the sore throat gets cured. On the other hand, if there is an abdominal pain and he does not know whether it is a digestive disturbance or an inflamed appendix, it is very important for him to make a diagnostic differentiation because the treatment of these conditions has to be so different.

In reading diagnosis, the first differentiation that has to be made is between those children whose problems are specific to reading and those who are generally slow. In this way we narrow our range of special inquiry to those children who can really profit from special attention. We look through the accumulated school records for any information that they can throw on how long he has had trouble in reading, what previous teachers have recorded about him, recorded intelligence and achievement test results, attendance, physical factors, conduct and personality ratings, and so on. A talk with his mother is desirable. This search may or may not cast light upon the causation. We should then proceed to a straightforward analysis of his reading problems, leading to the formulation of a teaching plan. If the parents are cooperative and interested, it may be helpful to suggest that the possibility of a significant visual or other physical defect be checked by comprehensive private examinations.

At this point it is proper to proceed with a remedial program, even though several areas of causation have not been explored at all deeply. If the child responds well to remedial help, it is an academic question whether or not we

ever get answers to those questions. If after a reasonable period of tryout the child is making disappointing progress, it is wise to try to get additional diagnosis in those areas that have not previously been covered. For example, it may be desirable to find out, through referral to a psychologist, psychiatrist, or mental hygiene clinic, whether the child's emotional problems are such that he cannot at present profit from remedial instruction. Proceeding one step at a time, in this way, we are able to avoid wasting our precious resources of psychological and psychiatric examinations, which are usually limited in availability, and use them for those cases that really need them, rather than giving every child a thorough diagnostic study.

Hudspeth, William J. "The Neurobehavioral Implausibility of the Delacato Theory," Claremont Reading Conference, pp. 126-131. Twenty-Eighth Yearbook. Claremont, California: Claremont Graduate School Curriculum Laboratory, 1964.

An evaluation of the neurobehavioral theory presented by Delacato.

William J. Hudspeth is with the Laboratory of Psychobiology, Claremont Graduate School.

Hudspeth finds many shortcomings in the theory of Delacato and concludes that it is at the very least in need of extensive revision before it is accepted as a workable hypothesis.

The question arises, how does one evaluate the neurobehavioral theory presented by Delacato? Can his theory predict, in advance, outcomes of specified methods; and, finally, do the findings reported by Delacato support his theory? The analysis presented here will show that his theory is not prepared to predict, nor do his findings support his theory. These inadequacies will be shown to be based upon the fact that his theory contains statements which are poorly defined and some that are inaccurate.

According to the Delacato theory, neural development proceeds from the level of the pons, through the midbrain, to the cortex where, in the final stage, hemispheric dominance occurs. The entire sequence of events and the end product are necessary antecedents to effective reading. Further, these events must follow in a specified order to reach the desired goal. This neuroanatomical development supposedly follows the structural changes found in ascending the phylogenetic scale. However, this comparison is based only upon gross structural similarities. In addition, there appears to be no one-to-one functional-structural correspondence as one follows the phylogenetic scale. Finally, studies of human development have shown that specific developmental stages are not followed in the same order by all individuals. In fact, some individuals omit a few stages. All of these reversals and omissions do not appear to produce any more reading difficulty than is found in the population at-large. Thus, it would seem that the required developmental sequence proposed by Delacato has little empirical support.

In assigning developmental roles to various areas of the central nervous system Delacato has postulated what is termed localization of function. Modern studies of functional neuroanatomy have shown that the brain is not so simply constructed. Higher brain areas (cortex) appear to integrate and modulate information received from lower centers, while the lower centers seem to be involved in vegetative, motivational and, most important, attentive functions. Areas such as the pons and the midbrain operate in maintaining and shifting attentive responses. These responses are not specific but may involve all kinds of behavior which involve attention, or rapid shifts in attention.

Finally, over thirty years ago Lashley discovered that no single area of the brain was responsible for the learning of a specific habit. He found that only the quantity of cortex removed influenced the acquisition of a habit. It would appear certain that no circumscribed area of the central nervous system are responsible for reading skills. It would be expected that the entire system participates in a highly complex manner. These findings cast considerable doubt upon the extreme localization of function proposed by Delacato.

The final stage of development, hemispheric dominance, stands as the most important product, neurologically speaking, in the Delacato theory. According to his reasoning, dominance: distinguishes men from animals; allows for the emergence of symbolic language; and biases men toward visual dominance. To support this contention, Delacato notes that: people are one-sided; lower primates, with well developed brains, do not stand upright, perceive depth, oppose thumb and forefinger, speak, write, or demonstrate lateral dominance.

That people are one-sided is a logical fallacy. Such a statement is tantamount to saying that people are all green-eyed. Since behavioral indices of laterality consist of measuring eye, foot, and hand dominance, it is more reasonable to expect that all combinations of these indices occur in nature. Further, these combinations occur without concurrent speech or reading difficulties. In addition, many lower animals exhibit lateral preferences, including the lowly rat. It is evident, then, that as an explanatory device, lateral dominance does not serve well to support Delacato's theory; in fact, his position is inconsistent with existing data.

Delacato is also inaccurate in stating that lower animals do not perceive depth. Almost all of the lower primates have stereoscopic vision. One can hardly imagine how monkeys could live in trees without such capacities. Two eyes are not necessary to perceive depth, there are many monocular cues to depth that serve well in many situations. Additionally, recent studies of the frog show that its eye will respond to depth (convexity) without the use of its brain. These findings clearly demonstrate the fact that Delacato's criteria for separating man and animal are inaccurate and thus provide no basis for supporting his theory.

That animals do not speak is a point which neither supports nor refutes Delacato's suppositions. Research in animal communication shows that most species communicate in one form or another. These forms vary from simplicity to great complexity. Since lower animals do not speak, in the symbolic sense, but do exhibit lateral preferences, how is it possible for the concept of laterality to bear so much theoretical weight?

In the final analysis, Delacato's theory assumes that reading problems are a consequence of nondominance of one of the cerebral hemispheres. The evidence presented here casts doubt upon the explanatory power of lateral dominance as employed by Delacato. Consideration of the organization of the visual and motor systems involved may help to clarify the events occurring during the reading process.

In practice, Delacato trains his patients to use one side; hopefully, to establish lateral dominance. This training consists of practicing one-sided motor and visual responses which should, according to Delacato, lead to some remediation of reading problems. Neurologically, one could establish motor dominance with this procedure. This would be expected because 70 per cent of the motor fibers from each hemisphere cross to the opposite side of the body.

However, there are two reasons for expecting that such dominance is of little consequence in reading. First, earlier discussion has shown that the concept of lateral dominance does not serve to distinguish good readers from poor readers. Secondly, it might be strongly suspected that reading is more of a perceptual than a motor problem. That is, reading probably involves perceptual rather than motor learning. What have studies of the visual system produced which bear upon this question? Histological studies of the visual system have shown that 50 per cent of the fibers from each eye cross to the opposite hemisphere. This would mean that information processed by a single eye is transmitted in about equal proportions to each hemisphere. The question here is whether the same information is given to each hemisphere. This, in fact, seems to be the case. If the single eye is trained to make a simple discrimination, subsequent tests of the untrained eye show that the information had been passed to the opposite side. Since the fibers are divided equally between the two hemispheres and both eyes are involved in reading, one would expect that the memory for the task should be stored equally in both hemispheres.

If Delacato's method of training could be assumed to work it might well be through perceptual reorganization. This is implied by the reading difficulties encountered in many individuals, such as word or letter inversions. Neurophysiological studies show that repeated stimulation of nervous tissue results, over time, in easier elicitation of the response common to the tissue. Studies of the effects environmental deprivation and enrichment show that the biochemical substances involved in nervous transmission are either decreased or increased by such treatment. Further, animals treated in such a manner show either deficiency or facility in learning tasks, depending upon whether they were deprived or enriched early in their lives. At this point it is impossible to tell why Delacato's method results in limited success. Since he relies upon case studies rather than controlled experiments to identify the factors operating in his treatments there is no way to progressively isolate truth from falsity. Further, his case studies consist of neurologically handicapped individuals; certainly not a representative sample from which to generalize to the population of persons with reading problems.

In conclusion, the theory presented by Delacato appears to be based upon statements which are inaccurate or inadequate. Most assuredly, his position is in need of extensive revision before it is accepted as a workable hypothesis. Similarly, his method seems to be undefinable in terms of understanding just what happens when success is achieved. Even these achievements are based upon questionable samples of subjects.

Unfortunately, theories based upon observations taken from case studies do not readily define causal factors. Since each case is different, it is virtually impossible to separate causal from noncausal factors in reading disability. In such theories there are tendencies to explain what has happened, after the fact, rather than predict what will happen in the future. The value of any theory lies in its ability to predict new information and stimulate more research. At this point, Delacato's theory is not ready to predict, and it is greatly in need of empirical evaluation.

Ihinger, Robert F. "Lateral Dominance and Reading Achievement," Claremont Reading Conference. Twenty-seventh Yearbook, pp. 126-29. Claremont, Calif: Claremont Graduate School, 1963.

A review of research literature on the subject of lateral dominance and reading achievement and an analysis of the results which concludes that the preponderance of evidence suggests a lack of relationship between reading and establishment of lateral preference.

Robert F. Ihinger is a School Psychologist.

Ihinger summarizes the research literature which pertains to the theories of Orton and Delacato, and questions the advocacy of remedial reading procedures which are based on theories which have been negated by empirical research.

Since Orton first presented his neurological theory of reading disability in 1925, eye and hand preference and their suspected effects on reading have stimulated much research. Recently Orton's theories have been restated in essence and popularized by Delacato (1959), giving impetus to further research intended to clarify issues somewhat obfuscated by the inadequate research methods prevalent in the thirties.

The premise set forth by Orton and Delacato is that due to incomplete establishment of lateral dominance a conflict between the mirrored projections of nerve impulses from each of the hemispheres of the brain results, causing stuttering, reversals, regressions, and hence, difficulty with reading.

Ploughing through a plethora of studies regarding this premise one can only be amused and surprised that the issue is still enticing followers. That is, it could be amusing were it not for the fact that many a sincere and concerned person is being entranced in a fashion reminiscent of the Pied Piper of Hamelin!

Let us look at what the abundant research literature has to offer. The very existence of lateral dominance as a central nervous system function is in doubt. There seems to be ample evidence (e.g. Monroe 1932, Witty and Kopel 1936, Woody and Phillips 1934, Gates and Bond 1936, and Smith 1950) that irregular eye movements and frequent regressions are caused by inability to read and/or confusion in reading, rather than causing them. That is, poor readers of any dominance pattern make such errors. As their reading improves, these errors tend to disappear more readily than do other types of reading errors. Further, studies show that lateral functions such as speed of reaction time are not altered with laterality training in which handedness is changed to match the dominant eye.

In the area of reading itself, it is frequently admitted by the dominance conflict proponents that large scale school surveys using standardized instruments do not show any relationship between lack of unilateral preference and reading achievement, but that intensive clinical studies of severely retarded cases did. Here again, while some studies have shown this, the very lack of consistency in the findings among similar studies would tend to belie the cause-effect hypothesis, particularly since the majority of clinical studies report no such difference between groups with different laterality classification. The severity of the learning difficulty, the methods by which they learn, and the degree of success in remediation are no different. Further, no change in laterality resulted from the remedial reading training.

Indeed, many clinical investigators (see Hallgren 1950, Fernald 1943, Smith 1950, and Bennett 1938) have reported no difference in the number of reversals, and/or regressions made by different laterality groups.

In a recent study the author investigated the possibilities of differential achievement in reading, arithmetic, and language among 2,446 sinistral, bilateral, mixed lateral, and dextral school children of either sex, to determine whether changes occur in the interrelationships among these groups in grades 3, 5, and 7. No consistent differences in achievement with laterality classification as a variable were found. It was concluded that lateral preference is not a cogent factor in determining the level of academic achievement.

It is incumbent upon any investigator attributing a cause-effect relationship to variables in his study to provide or demonstrate that a predictive relationship exists between them. For example, if a first grader is right-eyed and left-handed we should be able to predict at, say, the .05 level of confidence that he will manifest certain specified deficiencies in reading. If such relationships do not exist, it would be prudent and correct for an investigator to refrain from justifying remedial procedures based on the hypothetical assumption that they do. That is, miraculous remedial reading techniques may or may not exist. If they do, it is still not appropriate to purport that they do because of some theoretical function that cannot be demonstrated. Such behavior, while appropriate for presentation to a cult, is decidedly not appropriate for presentation to a professional and scientific community.

As of now, the preponderance of literature suggests a lack of relationship between reading and establishment of lateral preference. Until such time as some investigator is able to uncover reasons why these studies are inaccurate, and demonstrate how such relationships do in fact exist, it would behoove us all to look with skepticism upon any claims to miraculous remedial reading procedures based thereon, and to ask, demand that such claims be demonstrated empirically, and in such a way that an impartial investigator could obtain similar results!

Ketchum, E. Gillet. "Neurological and Psychological Trends in Reading Diagnosis," Reading Teacher, 17 (May, 1964) 589-93.

An excellent presentation of neurological hypotheses of reading disability, including a discussion of contemporary thought relative to the hemispheric functioning of the brain, particularly in the language areas.

E. Gillet Ketchum is Director of the Reeducation Clinic of the Psychological Services of the Institute of the Pennsylvania Hospital in Philadelphia.

. . . , that our increasing knowledge of the cortex demands more careful and circumspect thinking from all of us about the etiology of reading disorders in school age children The hypothesis of "mixed dominance," based on the brilliant Samuel T. Orton's antitropic and engrammatic views of the cortex, seems no longer tenable Recent evidence does not support the view that mixed preferences for the use of hand, for eyesighting, and for foot use are a clue, or a symptom of failure in children to establish one-sided cerebral dominance for the language functions. In fact, there arises the question as to whether such "mixed dominance," such difficulties in laterality, in directional stability, may not arise from inefficiencies within the nonverbal hemisphere itself

One is tempted to infer a failure to establish an efficient nonverbal hemisphere which could aid the child, through the interhemispheric connections, to develop stable directional and sequential skills and in turn help him keep his letters and associated sounds "in order."

The term "dominance" is altogether too loosely used these days by individuals, professional and otherwise, who hold a sadly oversimplified view of the intra- and interhemispheric complexities of man's cerebral cortex. When reading disorders in the young are not clearly assignable to primary emotional disturbances or discernible psychologic factors, there appears a too ready reference to the "organic," a too facile designation of "neurological," both of which often bear the connotation of "brain injury"

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. . . , reading disorders are presently considered to have three etiologic classifications: the psychologic, those associated with demonstrable brain damage, and those of constitutional, or congenital, origin. Careful, interdisciplinary differentiation in a spirit of mutual respect for knowledge and purpose is growing and can lead to further clarification. Dr. Rabinovitch and his co-workers at the Hawthorn Center in Michigan, Dr. William S. Langford and Katrina de Hirsh at the Pediatric Language Disorder Clinic of the Columbia-Presbyterian Medical Center, Dr. Dale Bryant of the Albany Center for Learning Disabilities are a few of the specialists who integrate neurology, psychiatry, and education in research and treatment. . . .

Casual attitudes towards identification and remediation of reading disorders and their related dysfunctions are still unfortunately prevalent in some schools today. Other flaws are insufficient diagnosis and insufficient, or inefficient, treatment. We must maintain a more cautious stance towards bandwagon enthusiasms and fads. . . . Various chemotherapies have proved capricious The stability and accuracy of electroencephalograms need refining. Physiotherapies and certain "motion" therapies need to be validated. . . . The reading specialists must continue to maintain a flexible view concerning the various kinesthetic, visual, auditory, and tactile remedial techniques. We still need to fit the treatment to the child and not vice versa.

Perkins, F. Theodore. "Problems Arising from Assertions or Assumptions of Delacato," Claremont Reading Conference, pp. 119-123. Twenty-Eighth Yearbook. Claremont, California: Claremont Graduate School Curriculum Laboratory, 1964.

A critical analysis of the theory of Delacato which indicates a definite need for more specific evidences concerning Delacato's theories before they can be accepted as guides to practice in the language and reading field.

F. Theodore Perkins is Professor of Psychology, Claremont Graduate School and University Center.

Perkins presents systematic and convincing evidence which raise serious questions regarding the basis for the assertions which have been made by Delacato.

It would appear that there is a cyclic character to the emphases in the language and reading fields. The revivals by Delacato of the Orton theory of cerebral dominance, promulgated in 1929, would seem to represent such a cycle.

If one has worked in the fields of psychology and education as long as I have, one lives through several such cycles. To make a personal reference, during the summers of 1930 and 1931, I studied at the University of Iowa. Shortly before this time, Orton and Orton and Travis (1929) and Travis (1931) had derived applications from the cerebral dominance theory to reading and speech problems. I recall that the courtyard outside the building containing the psychology and speech departments had numerous children and adults, with one hand tied behind their backs, practicing throwing balls, in an attempt to restore the original cerebral dominance and thus cure their stuttering or reading disability. I also recall that, as a mixed lateral case myself, I proved a problem for the theory, as one who didn't stutter or have a reading problem!

Of course by the 1940's this theory and procedure was abandoned by Travis and his followers, since the evidence clearly showed that these methods did not work.

Perhaps the field of language and reading is again ready for a swing toward emphasis on neurological, genetic, and physiological factors. It would seem, however, that such a movement should be based on newer material than that of Orton in 1928.

The assertions and/or assumptions made by Delacato raise a number of problems of a theoretic, methodological and factual character. I will list certain of these problems, some of which will be dealt with in more detail by other members of the panel.

First, Delacato makes as his basic theoretic concept the recapitulation theory, that the ontogenetic organization and development of man recapitulates phylogenetic development. Not only does evidence from comparative neurology fail to support this theory in any detailed way, but it has long been discarded in the educational and psychological fields from evidences on the development of behavior. Those familiar with the history of pedagogy at once recall the efforts of G. Stanley Hall to utilize this theory more than 60 years ago.

Second, there is the assumption that there are critical periods for the appearance of motor and perceptual activities, like crawling, walking, etc., and that these must occur to full development in a certain order. Certainly, there is current interest in evidence on critical periods from ethology, but there are many contradictions in the material from this field and very little evidence on human behavior (See Ewer, 1957). Evidence from child development certainly indicates that many children omit a phase like crawling, without showing later handicaps. Much further research is needed in this area as represented in the works on primates by Harlow (1962).

Third, Delacato assumes a hierarchy of levels of organization in the central nervous system reminiscent of the reflex levels attributed to Hughlings Jackson in the 1850's. This seems to fail to take into account newer conceptions of the functioning of the central system demanded by the role of the reticular system of the brain stem and its role in activation of the cortex by feed-back circuits (See Delafresnaye, 1953, 1961).

Fourth, one can raise questions concerning the assertion of a new panacea for reading. The reading field has a long history of such all-encompassing solutions, such as tracing methods, phonetics, eye movements, etc. Educators should rightly be skeptical of a new one and demand critical evidences.

Fifth, the utilization by Delacato of simple case reports as proof of his theory raises serious problems. The cases reported from his clinic are serious, complex cases, most, if not all, involving brain damage. The described treatment appears to be multiple involving medication and training of considerable variety. It is difficult if not impossible, to generalize from such material, even to the cases in question, let alone to normal children.

Sixth, one must question the assumption that early motor development is predictive of later intellectual development. The material of Shirley (1933) and Dearborn and Rothney (1941) would clearly show that no such simple assertion is warranted from research findings. Dearborn and Rothney in their analysis of data from the Harvard Growth Studies found correlations between motor development and later intellectual development to be near zero.

Seventh, the assumption may be questioned that language development in all of its phases is a unitary process and that reading comprehension is highly related to language fundamentals. An extensive longitudinal study at the University of Illinois reported by Haggard (1957) shows that individuals who are high achievers in language fundamentals such as spelling and grammar are low in creative ability and are highly dependent on adults whereas those who are high achievers in arithmetic are creative and relatively independent of adults. Those who are high achievers in reading comprehension fall between the other two groups. The material of Getzels and Jackson (1962) on creativity and intelligence clearly shows that abstract verbal development as measured by conventional intelligence tests differ from the development of creative abilities.

Eighth, there is considerable recent evidence to question the assumption that following early childhood periods, intelligence and educational development continue at a regular and stable pace. The evidences of Bayley (1955) from the California Growth Studies, and those of Sontag, Baker and Nelson (1958) from the Fels Research Institute show accelerative and decelerative trends in mental growth. Such acceleration or deceleration appears to be associated with the child's dependence or independence relationship with adults -- parents and teachers.

Ninth, the apparent neglect by Delacato of motivation would appear to raise serious questions. The increasing awareness of the ineffectiveness of simple reward and punishment procedures and the need for a more adequate conception of motivation characterizes current development in this field. Examples can be cited in Bruner's (1961) emphasis on discovery and intrinsic motivation, White's (1959) concept of competence, McClelland's (1961) achievement motive, Dember and Earl's (1957) stimulus complexity and pacer stimulus theory. Applications of some of these conceptions of motivation can be seen in self-demand reading programs.

Tenth, recent developments concerning the nature of perception and its relations to abstract concept formation cast doubt on the validity of the assumption that reading is primarily a receptive process. Gibson (1960, 1963) has shown the difficulties with the classical passive conception of receptivity and sensation. He presents experimental findings demanding an active sensing process in which a continual scanning mechanism results in perceiving the invariants in the environment. It is such sensing of invariance that underlies reading behavior.

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In conclusion, it should be noted that the series of questions that have been raised above are intended to indicate the need for further research and more specific evidences concerning Delacato's theories before these can be accepted as guides to practice in the language and reading field.

Robinson, H. Alan. "Trends in Identifying and Diagnosing Retarded Readers," in Challenge and Experiment in Reading, J. Allen Figurel, ed., International Reading Association Conference Proceedings, pp. 61-65. New York: Scholastic Magazines, 1962.

A discussion recent trends in identifying and diagnosing reading disabilities which emphasizes the importance of reading instruction which meets the specific cluster of needs of the pupil.

H. Alan Robinson is Professor of Education, University of Chicago.

Robinson analyzes available diagnostic procedures and comments upon several significant research findings regarding identification and diagnosis of reading difficulties:

Identification is the screening and selection of pupils who are in need of, and can probably profit from, treatment of their reading disabilities. Identification usually involves the study of results on standardized reading tests, informal reading tests, intelligence tests, listening comprehension tests, and teacher observations. Identification does not involve ascertainment of the exact nature of the difficulty; it merely announces the existence of the disability.

A review of the literature evokes the conclusion that there is an increasing tendency to use the results of group and individual intelligence tests in juxtaposition to reading tests in an attempt to determine reading retardation. This is certainly more realistic and a step beyond the use of grade level or chronological age as a criterion of retardation. Investigators, however, caution that properly assessing capacity is a major problem and intelligence tests are only crude guides.

At the present time, individual intelligence tests (especially the WISC) appear to make the most accurate measurement. In general the severely disabled reader obtains a considerably higher score on the Performance Scale than on the Verbal Scale. This concept has led a number of investigators to use the non-verbal parts of group intelligence tests with retarded readers. Although such a plan seems feasible, there are some doubts about the comparability of verbal and non-verbal results. One new group test appears to be attempting to parallel more closely non-verbal items with verbal concepts. The test is still in experimental form.

Another trend in the measurement of capacity is the use of group intelligence tests that have both verbal and non-verbal sections or items. This may prove to be a satisfactory procedure although care must be exercised in test choice. One new test purports to use both verbal and non-verbal items in order to reduce "social and cultural bias." An intermediate form of this test contains seven purely non-verbal items out of 110 items.

There is a trend toward greater depth in analyzing test results. There is increasing awareness of the concept that the base must be broadened -- that diagnosis of reading failure goes beyond the measurement of reading achievement alone. There is more of a realization that "tests provide only data upon which to base a diagnosis"

Outside of research studies and clinical situations, there does not seem to be a trend, however, toward making use of diagnostic procedures in practical school situations. As one reads reports of reading programs for retarded readers, the identification process is considered to be a diagnostic process. Pupils are grouped according to reading levels and then treated in a prescribed period of time, with prescribed materials and methods. The treatment of retarded readers appears largely to be based on the teacher's training and knowledge regardless of the outcome of the diagnosis if a diagnosis is made at all.

We learn from research that diagnosis is essential and that diagnosis loses its value if treatment is not suited to the specific needs and learning methods of the pupils involved. During the past decade, especially, research has demonstrated that we have much yet to learn about diagnosis. We are still fairly certain, as H. M. Robinson indicates, ". . . that no single anomaly is responsible for reading difficulty". But, there is evidence gathered by investigators working in a number of disciplines, that a specific type of weakness or a group of closely-related neurophysiological weaknesses may play an important role in severe retardation

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Obviously, the classroom teacher or reading consultant cannot complete a diagnosis for the severely retarded reader without the help of other specialists. But following a preliminary diagnosis, further study is always necessary. The school personnel working with the severely retarded reader daily must continuously appraise through every means possible.

One means of appraisal used rather widely today is the informal reading inventory. The inventory is a useful tool in diagnosis. Its use as a "level-finder" alone is, however, almost as limited as a lone score on an achievement test. As demonstrated in so many ways, and reported recently by Murphy, children may achieve similar gross scores or levels and differ markedly in specific skill areas. The individual, his specific cluster of needs, and a suggested program of treatment must be considered in any diagnostic procedure of significance.

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